

**PLAINTIFFS' MEMORANDUM IN OPPOSITION TO DEFENDANTS'
MOTION TO EXCLUDE EXPERT TESTIMONY OF THOMAS MCGUIRE**

EXHIBIT F

THOMAS MCGUIRE DEPOSITION TRANSCRIPT (09/09/2020).

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

* * * * *

THE CITY OF HUNTINGTON,

Plaintiff,

vs.

CIVIL ACTION
NO. 3:17-01362

AMERISOURCEBERGEN DRUG
CORPORATION, et al.,
Defendants.

CABELL COUNTY COMMISSION,
Plaintiff,

vs.

CIVIL ACTION
NO. 3:17-01665

AMERISOURCEBERGEN DRUG
CORPORATION, et al.,

Defendants.

* * * * *

Videotaped and videoconference deposition
of THOMAS MCGUIRE taken by the Defendants under the
Federal Rules of Civil Procedure in the above-
entitled action, pursuant to notice, before Teresa
S. Evans, a Registered Merit Reporter, all parties
located remotely, on the 9th day of September,
2020.

APPEARANCES:

APPEARING FOR THE PLAINTIFFS:

Michael Pendell, Esquire
David D. Burnett, Esquire
Anne McGinness Kearse, Esquire
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APPEARING FOR THE DEFENDANT AMERISOURCEBERGEN:

Cliff Breese, Esquire (morning)
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APPEARANCES (Contd.):

ALSO PRESENT:

Adam Hager, Videographer

Justin Taylor, Esquire (via Zoom)

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EXAMINATION INDEX

BY MR. KEYES

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BY MR. KO

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1 P R O C E E D I N G S

2 VIDEO OPERATOR: Good morning. We are
3 going on the record at 9:04 a.m. on September 9th,
4 2020. Please note that the microphones are
5 sensitive and may pick up whispering, private
6 conversations and cellular interference. Please
7 turn off all cell phones or place them away from
8 the microphones as they can interfere with the
9 deposition audio.

10 Audio and video recording will continue
11 to take place unless all parties agree to go off
12 the record.

13 This is Media Unit 1 of the video
14 recorded deposition of Tom McGuire taken by counsel
15 for the Defendant in the matter of the City of
16 Huntington and Cabell County Commission versus
17 AmerisourceBergen Drug Corporation, et al, filed in
18 the United States District Court for the Southern
19 District of West Virginia, being Civil Action Nos.
20 3:17-01362 and 3:17-01665.

21 This deposition is being conducted
22 remotely via Zoom conferencing. My name is Adam
23 Hager from the firm Veritext and I'm the
24 videographer. The court reporter is Teresa Evans

1 from the firm Veritext.

2 I am not authorized to administer an
3 oath; I am not related to any party in this action;
4 nor am I financially interested in the outcome.

5 Counsel and all present and everyone
6 attending remotely will now state their appearances
7 and affiliations for the record.

8 If there are any objections to
9 proceeding, please state them at the time of your
10 appearance, beginning with the noticing attorney.

11 MR. KEYES: Andrew Keyes with the law
12 firm of Williams & Connolly on behalf of Cardinal
13 Health.

14 MR. PENDELL: Go ahead. The other
15 defendants want to go before I go or what?

16 MR. FRANKS: Yeah, this is -- I'm
17 sorry, I'll go ahead. I'm running a little slow
18 this morning.

19 Also on behalf of Cardinal Health as
20 local counsel in Charleston, West Virginia, for the
21 firm of Carey, Kessler -- Carey Douglas Kessler and
22 Ruby, this is Ray Franks.

23 MR. BREESE: This is Cliff Breese from
24 Reed Smith on behalf of ABDC.

1 MR. KEYES: Anyone for McKesson?

2 MR. PENDELL: This is Mike Pendell,
3 Motley Rice, for the Plaintiffs.

4 MR. HURST: This is John Hurst with
5 Motley Rice for the Plaintiffs.

6 MR. KO: Oh, go ahead, John. Good
7 morning everyone. Bright and early from the West
8 Coast, this is David Ko, Keller Rohrbach, also on
9 behalf of the Plaintiffs.

10 MR. BURNETT: And David Burnett from
11 Motley Rice on behalf of Plaintiffs.

12 MR. KEYES: Anyone else?

13 MS. KEARSE: Anne Kearse is also on
14 for the Plaintiffs.

15 VIDEO OPERATOR: If there are no
16 further appearances to be noted, would the court
17 reporter please swear the witness.

18 (A discussion was had off the record
19 regarding someone needing to mute
20 their audio after which the
21 proceedings continued as follows:)

22 (The witness was sworn.)

23 T H O M A S M C G U I R E

24 was called as a witness by the Defendants, and

1 having been first duly sworn, testified as follows:

2 EXAMINATION

3 BY MR. KEYES:

4 Q. Good morning, Professor McGuire. Would you
5 please state your full name for the record?

6 A. Good morning. My name is Thomas Gregory
7 McGuire.

8 Q. And you are serving as a testifying expert
9 in this case, correct?

10 A. Yes.

11 Q. And you're serving as a testifying expert
12 for the plaintiffs in this case?

13 A. That's right, for the plaintiffs.

14 Q. And who do you understand to be the
15 plaintiffs in this case?

16 A. I understand the plaintiffs to be the City
17 of Huntington and Cabell County.

18 Q. And you've issued a written report setting
19 forth your opinions in this case?

20 A. Yes, I have.

21 Q. And that report is dated August 3rd, 2020?

22 A. Yes, it is.

23 Q. And then you submitted an errata sheet to
24 that report?

1 A. Yes, I did.

2 Q. And you submitted that errata sheet on
3 August 24th, 2020?

4 A. Yeah, I believe that's correct.

5 Q. And that errata sheet sets forth
6 corrections or modifications to your original
7 report, correct?

8 A. Yes, it does.

9 Q. Okay. Other than your original report and
10 that errata sheet, have you prepared anything in
11 writing that sets forth your opinions in this case?

12 A. No, I have not.

13 Q. Okay. I believe your report is titled the
14 professor -- the "Report of Professor Thomas
15 McGuire Regarding Public Nuisance in the Cabell
16 Huntington Community in West Virginia."

17 Did I get that title right?

18 A. I'd have to check. Should I look at it or
19 not?

20 Q. It sounds right to you so far.

21 A. It's -- I'll go with it.

22 Q. Okay. And that report sets forth your
23 opinions in this case?

24 A. Yes, it does.

1 Q. And the statements in that report are your
2 statements?

3 A. Yes, they are.

4 Q. And the calculations in that report are
5 your calculations?

6 A. Yes, they are.

7 MR. PENDELL: Objection.

8 Q. And the work reflected in that report is
9 your work?

10 A. Yes, it is.

11 Q. And does that report include all of the
12 opinions that you intend to offer in this case as a
13 testifying expert for the plaintiffs?

14 A. Unless I'm asked to do more, that's that.

15 Q. Okay. So at this point in time, have you
16 been asked to do more?

17 A. No, I haven't.

18 Q. When were you first engaged to work on this
19 case as a testifying expert?

20 A. I went back and looked at my records, and I
21 began to record hours in January of this year.

22 Now, I -- it might have been an engagement prior to
23 that, but probably not very much farther than that
24 and --

1 Q. Who --

2 A. -- (Zoom audio glitch)

3 Q. -- first approached you about serving as a
4 testifying expert in this case?

5 A. It likely would have been Renee Rushnawitz
6 of Greylock McKinnon.

7 Q. And why do you believe it's likely that it
8 was her?

9 A. She's an officer of the company and tends
10 to field requests from counsel, and then would have
11 passed the request on to me.

12 Q. And in your prior answer, you referenced
13 "the company." Are you referring to Greylock
14 McKinnon Associates?

15 A. Yes, that's it.

16 Q. Did you write the report?

17 A. Yes, I did.

18 Q. Did anyone else write portions of the
19 report for you?

20 A. No, I wouldn't say, no.

21 Q. When you were first engaged as an expert in
22 this case, what did you understand the scope of
23 your assignment to be?

24 A. Well, I understood it to -- to bear on the

1 subject of public nuisance, and then to -- with
2 respect to public nuisance, consider whether the
3 net costs of prescription opioids in the -- in what
4 I'll call "the community - by which I mean Cabell
5 County and Huntington - are sufficiently large to
6 support the conclusion that they were a public
7 nuisance.

8 Q. Anything else?

9 A. Well, my assignment is -- you know, in more
10 detail, is on the first couple pages of my report,
11 and has three pieces. But that's the, you know,
12 general subject of what my assignment was.

13 Q. In Paragraph 5 of your report, you say,
14 quote, "I have been assisted in this matter by
15 staff of Greylock McKinnon Associates working under
16 my direction."

17 Did anyone besides the staff of
18 Greylock McKinnon Associates provide any
19 assistance?

20 MR. PENDELL: Hold on. Andy, I don't
21 know if other people are, but we're having a hard
22 time hearing you. You sort of sound like you're
23 underwater.

24 MR. KO: Yeah, I have the same

1 problem. I couldn't hear that last question, Andy.

2 MR. KEYES: Did it change or did it
3 sound like this from the beginning?

4 VIDEO OPERATOR: No, it changed. You
5 did not sound like that at the beginning.

6 MR. PENDELL: Right.

7 MR. KEYES: Is this better?

8 MR. PENDELL: No.

9 MR. KEYES: How about now?

10 MR. PENDELL: No.

11 VIDEO OPERATOR: No. Sounds the same.

12 MR. PENDELL: It's weird, because in
13 the beginning, you were fine.

14 THE DEPONENT: I would mute and
15 unmute. That's my strategy for these things.

16 MR. KEYES: Good strategy. Is this
17 better?

18 THE DEPONENT: No.

19 VIDEO OPERATOR: No. It still sounds
20 the same.

21 (A discussion was had regarding audio
22 issues off the record after which the
23 proceedings continued as follows:)

24 VIDEO OPERATOR: Going off the record.

1 The time is 9:14 a.m.

2 VIDEO OPERATOR: Now begins Media Unit
3 2 in the deposition of Tom McGuire. We're back on
4 the record. The time is 9:21 a.m.

5 BY MR. KEYES:

6 Q. Professor McGuire, sorry for the delay.

7 A. No problem.

8 Q. In Paragraph 5 of your report, you say,
9 quote, "I have been assisted in this matter by
10 staff of Greylock McKinnon Associates working under
11 my direction."

12 Did anyone besides the staff of
13 Greylock McKinnon Associates provide any assistance
14 to you in this engagement?

15 A. No, they didn't.

16 Q. I believe that staff from Compass Lexecon
17 had assisted you in a prior engagement with
18 different plaintiffs in the opioid litigation. Did
19 anyone from Compass Lexecon help you on this
20 engagement?

21 A. No, they didn't.

22 Q. Okay. How many staff from Greylock
23 McKinnon Associates assisted on this engagement?

24 A. Most of them would have been, you know, you

1 would say part-time. But of the total number of
2 people who would have assisted, I -- my guess is
3 six, seven.

4 Q. And who are they?

5 A. My primary contact at Greylock McKinnon was
6 Adrian Garcia. And also Renee Rushnawitz was very
7 helpful. And then Adrian would have organized work
8 of analysts to, you know, conduct different tasks
9 with respect to the report.

10 Q. How many different --

11 A. I'm sorry. Would you like names?

12 Q. Yes. Do you have names?

13 A. Yes. Travis Donahoe was one of the
14 analysts, and he happens to be from Huntington,
15 West Virginia, went to Marshall.

16 Then -- that's -- I'm sorry, that's the
17 only name I can recall at this point.

18 Q. Okay. So what was Renee Rushnawitz's role
19 in this engagement?

20 A. I would say -- she's a kind of jack of all
21 trades and very experienced in litigation, so -- I
22 don't know. She would, you know, help organize who
23 does what and help problem solve generally.

24 Q. Did she work on any particular issue or

1 issues covered by your report?

2 A. No, I don't think so.

3 Q. What about Adrian Garcia? You said that he
4 -- he coordinated the work of different analysts to
5 do different tasks. But did Mr. Garcia work on any
6 particular issue or issues covered by your report?

7 A. He worked on all the issues, I would say.

8 Q. Okay. And what did Travis Donahoe do?

9 A. He mostly worked on the labor force
10 analysis and some on the -- mostly within the
11 morbidity section, I would say. There's a couple
12 pieces there that he helped with.

13 Q. And how much time did the staff of Greylock
14 McKinnon Associates spend on this engagement?

15 A. Now, I never saw any record of that, so I
16 really wouldn't know.

17 Q. Okay. And do each of them charge an hourly
18 rate?

19 A. Well, they -- they would be billed at an
20 hourly rate by Greylock McKinnon, but actually, I
21 don't know how that works, so sorry. I can't tell
22 you.

23 Q. Okay. In the Summit County and Cuyahoga
24 County case in which you served as a testifying

1 expert, you testified that your report in that case
2 on nuisance was your first public nuisance venture.
3 Do you recall that testimony?

4 A. Yes, I do.

5 Q. And you testified in that Summit County and
6 Cuyahoga County case that you had never served as a
7 testifying expert offering opinions regarding a
8 public nuisance before that case. Do you recall
9 that testimony?

10 A. I do, yes.

11 Q. Okay. And in your report in this case, on
12 page 3 of your summary of litigation experience,
13 you say that you have prepared an expert report in
14 the case filed as State of Washington versus Purdue
15 Pharma in King County Superior Court in Washington.

16 Do you recall that?

17 A. Yes, I do.

18 Q. And so in that case, you've submitted an
19 expert report?

20 A. I did, yes.

21 Q. Have you been deposed in that case?

22 A. It would be written there.

23 Q. Yeah, you wrote here that you had an expert
24 report in July of 2019, and there's no reference to

1 being deposed.

2 A. Yeah, I wasn't deposed then.

3 Q. Okay. And you describe the scope of your
4 assignment in that State of Washington case as,
5 quote, "identification and valuation of public
6 nuisance outcomes." Do you see that?

7 A. Yes.

8 Q. Okay. So other than the work you did in
9 the Summit County and Cuyahoga case and the State
10 of Washington case, and of course, this case, is
11 there any other case where you have served as a
12 testifying expert offering opinions regarding a
13 public nuisance case -- a public nuisance?

14 A. That --

15 MR. PENDELL: Go ahead, Tom.

16 A. I'm sorry. Do you mean by that a completed
17 report?

18

19 MR. PENDELL: Yeah, I just wanted --
20 Professor McGuire, to the extent you've been --
21 you've been disclosed as an expert and provided a
22 report, you can answer that question, but you know,
23 if you've been retained in other cases and not yet
24 disclosed and -- or submitted an expert report,

1 then I would not talk about those engagements.

2 Does that make sense?

3 THE DEPONENT: That was my -- that was
4 what my question was about.

5 A. So with that clarification, there's nothing
6 else.

7 Q. Okay. So is it accurate to say that the
8 only cases that you have served as a testifying
9 expert offering opinions regarding a public
10 nuisance are the Summit County and Cuyahoga County
11 case, the State of Washington case and this case?

12 MR. PENDELL: Objection to form.

13 A. Yes.

14 Q. And your report says you are paid \$850.00
15 per hour? Is that accurate?

16 A. Yes, that's correct.

17 Q. How many hours have you worked on this
18 case?

19 A. I checked my records on this, so I can give
20 you a pretty good number. I began recording hours
21 in January of 2020, and through August of 2020 -
22 which was the last accounting that I sent in to
23 Greylock McKinnon, the total was 180 hours.

24 And of course, there'd be some in

1 September, so there might be to this point 20 more
2 hours or so.

3 Q. Okay. So as of August of 2020, the total
4 was 180 hours, and you anticipate roughly another
5 20 hours since the end of August?

6 A. Yes, that's correct.

7 Q. And to whom do you submit your invoices?
8 Or your time records.

9 A. I submit them to Renee Rushnawitz.

10 Q. Okay. And you say in your report that in
11 addition to the hourly rate you receive, you also
12 receive compensation from Greylock McKinnon
13 Associates based on the collected staff billings of
14 Greylock McKinnon Associates in support of your
15 work in this matter.

16 How is that compensation calculated?

17 A. It's a little mysterious to me, but what I
18 know about it is that staff billings refer to a
19 subset of the people who have worked on this
20 report. For example, Renee Rushnawitz's time is
21 not included in that calculation.

22 But then the billings of Adrian and the
23 analysts, I believe, would be included in that.
24 And then there's a percentage of that that's

1 figured and paid to me.

2 Q. And how is that percentage calculated?

3 A. That's the mysterious part to me. It
4 varies according to my role. And I -- I just don't
5 -- I don't focus on it. It is what it is and I'm
6 happy when I get the money.

7 Q. So what is the amount of the compensation
8 that you've received or will receive from Greylock
9 McKinnon Associates based on the collected staff
10 billings of staff in support of your work in this
11 matter?

12 A. I have not received anything so far, and --
13 I don't know. It tends to happen, you know, when
14 something is resolved, finished, end of story,
15 whatever -- whatever happens to a matter, and I --
16 I'm not sure.

17 Q. So you don't know what the percentage is,
18 and you don't know what the payment will be?

19 A. That's correct.

20 Q. Do you have any estimate or expectation
21 what that amount will be?

22 A. You want me to give an estimate of what it
23 -- in my experience, the payment might be?

24 Q. Yes.

1 MR. PENDELL: Hold on. I just want to
2 object. But you can answer.

3 A. I'd say \$20,000 to \$25,000.

4 Q. Okay. And how are you arriving at that
5 estimate of \$20,000 or \$25,000?

6 A. I've done other cases through GMA, and it
7 -- this is a guess. You know, based on the kind of
8 level of effort in this case, and comparing that to
9 other cases, that's what I would expect the outcome
10 to be.

11 Q. In past cases when you've received
12 compensation from Greylock McKinnon Associates
13 based on the work of staff in support of your
14 engagement, have you received some kind of
15 accounting that explains how that number was
16 derived?

17 A. No, I haven't.

18 Q. You haven't gotten a report that says
19 you're gonna receive X percent of Y hours spent by
20 the staff on the engagement?

21 A. That's correct. I receive no details of
22 the accounting. I don't know -- that's why I don't
23 know the percentage. And I -- in none of the
24 previous matters did I know either the total

1 billings by staff, nor did I know the percentage.

2 Q. I take it you don't know the percentage or
3 the formula, but is there a -- an agreed-upon
4 formula? Or is the amount that you receive for
5 this type of compensation discretionary?

6 A. My understanding is that it's not
7 discretionary, that there is a formula. It's just
8 I haven't focused on it.

9 Q. In Appendix B of your report, you list a
10 series of meetings and calls in which you
11 participated with personnel from Cabell County or
12 Huntington. Do you recall that?

13 A. Yes, I do.

14 Q. What was your purpose in participating in
15 those meetings and calls?

16 A. Very generally to learn things about the
17 local situation.

18 Q. And how much time did you spend in the
19 March 4th, 2020 in-person meeting that you list on
20 page Appendix B-18?

21 A. It would have been part of two --

22 MR. PENDELL: Mr. -- Andy, is he
23 allowed to look at the report?

24 MR. KEYES: Sure.

1 MR. PENDELL: I just didn't know --

2 Q. If it's helpful, you can pull out the
3 report. Yeah, if it's helpful, you can pull out
4 the report and you can look at that page. It's
5 page Appendix B-18.

6 A. Okay. I don't need it for this one, but
7 I'll just get the report and bring it closer to me
8 which would give me a feeling of security.

9 Q. Okay.

10 A. That particular in-person meeting would
11 have been part of two days. And so in the
12 afternoon of the first day, we had some meetings
13 and then a dinner with some of the local people,
14 and then the next day, there was another series of
15 meetings that ended I'm not sure when. 2:00 or
16 3:00 or something like that.

17 So I'm just going to move a little bit,
18 get my report, and I'll be like two seconds.

19 Q. Okay.

20 A. Okay.

21 Q. Okay. Well, why don't you turn to that
22 list on page Appendix B-18.

23 A. Okay, I'm there.

24 Q. Okay. And do you see the section Titled

1 "Meetings and Calls"?

2 A. I do, yes.

3 Q. And then the first entry is for March 4th,
4 2020?

5 A. Yes.

6 Q. And it lists in-person meeting with counsel
7 and Dr. Lyn O'Connell, Chief Jan Rader, Mayor Steve
8 Williams, Captain Rocky Johnson, Dr. Zach Hansen,
9 Doctor Todd Davies and Dr. Chafin. Do you see
10 that?

11 A. I do, yes.

12 Q. Okay. And so you're saying that this
13 actually occurred over two days, March 4th and
14 March 5th?

15 A. I'm not sure which -- which of the dates of
16 the two days, but there were some afternoon
17 meetings prior to the big meeting.

18 Q. And did the in-person meeting described
19 here occur before or after you started writing your
20 report?

21 A. Probably you would say after.

22 Q. Okay. So when did you write the report in
23 this case?

24 A. Oh, I think I would have started, you know,

1 right at the beginning, you know, outlining what
2 it's gonna be, entering some of the material that I
3 could enter, you know, as soon as possible, setting
4 up the tables.

5 Q. And when you say, "the beginning," are you
6 referring to January of 2020?

7 A. I would say January of 2020, yeah.

8 Q. Okay. Did -- did your in-person meeting
9 with counsel and these individuals cause you to
10 change direction in how you were approaching your
11 assignment?

12 A. I'm not sure what you mean by "change
13 direction".

14 Q. Did it cause you to do something
15 differently than you had already started doing?

16 A. Well, I would say it -- you know, the
17 in-person meetings were, I think, very helpful to
18 see -- you know, to move from the level of abstract
19 national statistics down to a real place with real
20 people and how these things are affecting
21 individuals in the community.

22 And it was quite -- you know, quite
23 effective. So it -- it reinforced in my mind the
24 importance of not just, you know, doing the

1 national-based calculations, but to where I -- to
2 the extent I could, to relate that to the local
3 on-the-ground experience.

4 Q. And where did these in-person meetings
5 occur?

6 A. The in-person meetings were in the law
7 offices of somebody or other in Huntington.

8 Q. In the law offices of one of the law firms
9 representing the plaintiffs?

10 A. Well, I don't know that to be so, but it
11 was in law offices.

12 Q. Okay. And then on the same page of your
13 report, you list a series of calls with counsel and
14 various individuals between March 31st, 2020 and
15 July 31st, 2020. Do you see that list?

16 A. I do, yes.

17 Q. Okay. Did you take notes during any of
18 these calls or meetings?

19 A. No, I did not take notes.

20 Q. Did you take notes in any of your in-person
21 meetings or any of your calls that are listed on
22 this page?

23 A. I did take some notes from the first
24 meeting, yes.

1 Q. Okay.

2 A. But subsequent to that, I -- it was always
3 -- you know, Adrian was on these calls, and I
4 relied upon him to, you know, note down anything
5 that would be -- we need to --

6 Q. Okay.

7 A. (Zoom audio glitch)

8 Q. So let me make sure I understand. For the
9 in-person meetings that occurred either on March
10 3rd or 4th or the 4th and 5th, you did take some
11 notes?

12 A. Yes, that's correct.

13 Q. Okay. And did you -- were these
14 handwritten notes, or were these notes you took on
15 a laptop or a computer?

16 A. I put them on a -- in a file on a computer.
17 I didn't put them originally on a laptop, no.

18 Q. Okay. So you took handwritten notes and
19 then you typed them up and saved them in a computer
20 file?

21 A. It may have been that, or I may have just
22 noted down things I remembered. I can't remember
23 whether I actually had handwritten notes.

24 Q. Okay. And did you share the notes - either

1 the handwritten version or the typed-up version -
2 with counsel for the plaintiffs?

3 A. No, I did not.

4 Q. Okay. Where are those notes now?

5 A. In the cloud somewhere.

6 Q. Okay. Do you know how to find them?

7 A. I could probably find them, yes.

8 Q. Okay. And then turning to the calls you
9 had with counsel and these witnesses between the
10 end of March and the end of July, you did not take
11 any notes; is that correct?

12 A. That's correct.

13 Q. But I think you said Adrian from GMA did
14 take some notes?

15 A. Yes. That's -- yes.

16 Q. And did he take notes at your direction, or
17 on his own initiative?

18 A. I think I instructed him to take notes of
19 anything that we needed to remember after the
20 calls.

21 Q. Anyone besides Adrian take notes of any of
22 these calls?

23 MR. PENDELL: Objection.

24 A. Well, he's the only one I know of.

1 Q. Okay. Did Adrian participate in all of
2 these calls with you and these individuals? Or
3 just some of them?

4 A. You know, I can't remember any he missed.
5 I think he was in all of them or virtually all of
6 them.

7 Q. And when he took notes, did he take them by
8 hand, or did he type them up on a laptop or a
9 computer?

10 A. I don't know.

11 Q. After he took the notes, was there ever an
12 occasion where you looked at them as part of your
13 work in preparing your report?

14 A. No, I did not.

15 Q. Have you ever seen his notes of these
16 conversations?

17 A. No, I have not.

18 MR. KEYES: Mike, we received three
19 pages of typewritten notes that had redactions.
20 Are you able to tell me the basis for the
21 redactions?

22 MR. PENDELL: I am -- I am not.

23 MR. KEYES: Okay. Would you make a
24 note to look into that and let us know whether the

1 redactions are based on a claim of privilege or for
2 some other reason?

3 MR. PENDELL: Will do.

4 MR. KEYES: Okay.

5 Q. And did your calls with any of these listed
6 individuals cause you to change your approach?

7 A. Oh, I -- again, I don't think it's a matter
8 of change of approach. You know, I'm trying to --
9 just to do, you know, a standard economic analysis
10 here. And these individuals were not there to, you
11 know, counsel me on the economic analysis.

12 It had to do with, you know, the nature
13 of the impacts in the community and, in some cases,
14 data sources.

15 Q. Focusing on the in-person meeting with
16 counsel and the listed individuals, to what extent,
17 if any, are you relying on what you were told in
18 those meetings in offering your opinions in this
19 case?

20 A. I have a hard time answering that other
21 than, you know, elaborating on what I said a few
22 minutes ago, that these individuals were various
23 public servants and medical people in the
24 Huntington area that could give concrete reports

1 about the kind of things that I was concerned with
2 in my public nuisance report, and it confirmed the
3 importance and --

4 I don't know. That's -- that's more or
5 less how I, you know, would see these meetings.

6 Q. Did -- did any of these individuals provide
7 any factual information that you relied on in terms
8 of structuring your analysis or performing your
9 calculations?

10 A. I would say to that question, in terms of
11 structuring my analysis, I would say no. That I
12 could -- I could bring that to the table.

13 Q. Okay. And returning to these calls you had
14 from the -- between the end of March and the end of
15 July, did you rely on any information from any of
16 these individuals in preparing your report?

17 A. Well, I think you will see some in my
18 report. The -- in some cases, there's, you know,
19 quotes from these people. In some cases, there's
20 material provided by -- I don't know if he's here.

21 -- the fellow who provided the heat
22 maps.

23 These things all fed into -- fed into
24 my report. But I think it's there in my report if

1 I relied upon it.

2 Q. Did you rely on anything they said in
3 structuring your analysis or performing your
4 calculations?

5 A. I mean, with respect to that, I would say
6 no. I could structure the analysis based on my
7 expertise, and the calculations I could also figure
8 out how to do.

9 Q. Would you turn to page Appendix B-3?

10 A. Okay.

11 Q. Are you there?

12 A. Yes.

13 Q. You list a number of deposition
14 transcripts. Do you see that list?

15 A. Yes, I do.

16 Q. Did you read each of those deposition
17 transcripts?

18 A. I read a lot of deposition transcripts.

19 Q. Okay. Well, is this -- I didn't mean to
20 cut you off.

21 A. No, you go ahead.

22 Q. Is this a complete list of deposition
23 transcripts that you read in whole or in part?

24 A. Yes, I believe it is.

1 Q. Okay. So for the ones that are listed
2 here, did you read each one of them in its
3 entirety?

4 A. Well, that would probably be going too far.
5 I didn't read each of them in their entirety. What
6 I was interested in is if any part of the
7 deposition had to do with something relating to my
8 report. And then I would slow down and read that
9 more carefully.

10 And you know, sometimes I would then
11 draw material from them.

12 Q. Did anyone prepare summaries of these
13 deposition transcripts for you to read?

14 A. No, they didn't.

15 Q. And so how did you know what portions of
16 the deposition transcripts you should read because
17 they related to your work in this matter?

18 A. Well, mostly it's looking at the
19 deposition, you know, seeing a subject that's being
20 discussed, and it takes pages and pages for some of
21 the subjects to be handled, and so then you flip,
22 flip, flip until you see something -- you know,
23 some key words maybe that look like something you
24 would be interested in, and then you stop and read

1 that.

2 Q. You also list a number of expert reports.
3 I believe you list seven expert reports here. Do
4 you see that?

5 A. Yes.

6 Q. Are those all of the expert reports that
7 you had read prior to submitting your report on
8 August 3rd?

9 A. Yes, that's correct.

10 Q. And did you read each of those reports in
11 its entirety?

12 A. Well, I did read Keyes in its entirety. I
13 think the others were in the same category of the
14 depositions. There's some stuff I didn't focus on
15 and some other stuff I did.

16 Q. And did you read the final version that was
17 submitted on August 3rd, the same day as your
18 report, or did you read an earlier version of those
19 reports?

20 A. The Keyes report, I read the final version,
21 and I believe the other ones as well too.

22 Q. Are these all of the expert reports that
23 have been submitted by the plaintiffs in this case?

24 A. Hmm. I don't know one way or the other.

1 Q. So how did you come to review these reports
2 in particular? Did you ask for them? Or did
3 someone else suggest you read them?

4 A. I know I asked for, you know, at least
5 three of these. I -- Lembke, Keyes and Waller. I
6 don't remember Thompson and Smith.

7 Q. Just to make sure I understand, you -- you
8 recall asking to see the expert reports written by
9 Lembke, Keyes and Waller?

10 A. That's what I recall. And I don't recall
11 whether or not I did with respect to Smith or
12 Thompson.

13 Q. Okay. How about McCann?

14 A. Same. I mean, same in the sense that I
15 don't recall having asked one way or the other.

16 Q. Okay. Did you speak with Craig McCann
17 before he submitted his report?

18 A. No, I didn't.

19 Q. Have you spoken with Craig McCann since he
20 submitted his report?

21 A. No, I haven't.

22 Q. So have you ever spoken with Craig McCann?

23 A. I don't think so. I may have in another
24 matter, but I can't recall.

1 Q. Did you speak with Doctor Waller before he
2 submitted his report?

3 MR. PENDELL: Objection.

4 A. No, I didn't.

5 Q. Have you spoken with Doctor Waller since he
6 submitted his report?

7 A. No, I haven't.

8 Q. Have you ever spoken with Doctor Waller?

9 A. No, I don't think so.

10 Q. Did you speak with Doctor Thompson before
11 she submitted her report?

12 A. Not that I recall, no.

13 Q. Did you speak with Doctor Thompson since
14 she submitted her report?

15 A. No, I haven't.

16 Q. Have you ever spoken with Doctor Thompson?

17 A. No, I don't think so.

18 Q. Did you speak with Professor Keyes before
19 she submitted her report?

20 A. Yes, I did.

21 Q. How many times?

22 A. Well, I first met Professor Keyes in the
23 March visit in 2020, and of course, we spoke there.
24 We were there, you know, for that time. And then

1 Professor Keyes was on maybe all - or certainly
2 most - of the calls that are listed on page B-18 of
3 this.

4 Q. Okay. Separate from the March 2020 visit
5 and the calls that are listed on Appendix B-18, did
6 you speak with doc -- Professor Keyes before she
7 submitted her report?

8 A. You know, I don't think so.

9 Q. And have you spoken with Professor Keyes
10 since she submitted her report?

11 A. No, I have not.

12 Q. Did you speak with Doctor Lembke before she
13 submitted her report?

14 A. No, I did not.

15 Q. Did you speak with Doctor Lembke since she
16 submitted her report?

17 A. No, I have not.

18 Q. Have you ever spoken with Doctor Lembke?

19 A. No, I don't think so.

20 Q. And did you speak with Doctor Smith before
21 he submitted his report?

22 A. Yes, I did.

23 Q. How many times?

24 A. Once, I believe.

1 Q. When was that?

2 A. That would have been on one of the calls.

3 I -- probably listed on B-18.

4 Do you want me to take a look?

5 Q. Sure.

6 A. All right. I may be mixing him up with
7 someone. So I --

8 Q. Looking at --

9 A. I'm sorry.

10 Q. -- page B-18 --

11 A. Yeah, I (Zoom audio glitch) --

12 Q. -- refresh your recollection as to whether
13 you spoke with Doctor Smith at any time before he
14 submitted his report?

15 A. Yeah, maybe I didn't. I'm sorry if I got
16 that wrong.

17 Q. Have you spoken with Doctor Smith since he
18 submitted his report?

19 A. No, I haven't.

20 Q. Okay. And after looking at Appendix B-18,
21 do you believe you've ever spoken with Doctor
22 Smith?

23 A. No, I don't think I have.

24 Q. Okay. I've gone through the experts whose

1 reports you list here on Appendix B-3. Did you
2 speak with any other expert who submitted a report
3 for the plaintiffs at any time?

4 A. No.

5 Oh, Caleb Alexander, I -- was on some
6 of the calls. Now, if you consider that "speaking
7 with," but he was on some of the calls.

8 Q. Anyone else besides Caleb Alexander?

9 A. No.

10 Q. Okay. And you believe that Cal -- Caleb
11 Alexander was on some of the calls that are listed
12 on B-18?

13 A. Yes. He or --

14 Q. Separate from those calls, did you speak
15 with Caleb Alexander?

16 A. No, I did not.

17 Q. So at this point, do you believe you've
18 identified for me every conversation you had with
19 any testifying expert for the plaintiffs in this
20 case?

21 MR. PENDELL: Objection.

22 You can answer. Go ahead.

23 A. Well, to the best of my recollection, yes,
24 that I've told you everything I know.

1 Q. When you spoke with Doctor Keyes, did you
2 discuss her methodology for the opinions and
3 calculations she offered in her report?

4 A. Well, yes, in the sense that I needed to
5 know what she was doing so that I could be ready
6 for it when the time came.

7 Q. Right. You couldn't wait for her to finish
8 her report and then start your work. Correct?

9 A. That would have been extremely difficult.

10 Q. Okay. So when did you first discuss with
11 her her methodology?

12 A. Oh, probably when we first met in March.

13 Q. And what did she explain in that March
14 meeting about her methodology?

15 A. Well, Professor Keyes is an epidemiologist,
16 as I'm sure you know. And we would have discussed,
17 you know, the nature of the information she would
18 be able to provide to me for purposes of my report.

19 And you know, maybe how she would have
20 been going about it. I don't remember any details
21 about that.

22 Q. Okay. Did she tell you that she would be
23 attempting to identify specific data points that
24 you intended to use in your quantification?

1 MR. PENDELL: Object to the form.

2 A. At some point, you know, that was covered.
3 I don't -- I don't -- we probably weren't so
4 specific in March. Just to get a general sense of
5 what her role is, what my role is, how might it
6 work.

7 Probably the details were ironed out
8 mostly by staff, I would say, in the subsequent
9 months.

10 Q. Did you have subsequent conversations with
11 Doctor Keyes?

12 A. Now, you asked about this, and I don't -- I
13 don't recall that we spoke in person about this,
14 aside from the meetings we were in together.

15 Q. So if I understand correctly, you said that
16 you did speak with her at the in-person meeting in
17 March of 2020, and that Doctor Keyes was on all of
18 the calls with you that you listed on Appendix
19 B-18, but you have not spoken with her since her
20 report was issued.

21 Did I get that right?

22 A. I have not spoken with her since her report
23 was issued, that's -- I'm 100 percent sure of that.

24 I'm not sure if there was some other

1 Keyes/McGuire conversation outside of the ones that
2 you listed there. There may have been. I just --
3 I don't remember.

4 Q. Who are the defendants in this case?

5 A. Well, my understanding are there -- the --
6 what I would call the distributors.

7 Q. Who are they?

8 A. I'm not gonna get them all. But Cardinal,
9 AmerisourceBergen, McKesson, and then some of the
10 -- you know, what an economist would refer to as
11 integrated firms like Wal-Mart, Rite Aid, CVS, that
12 ,you know, had multiple roles in the drug
13 distribution chain. But I'm sure --

14 Q. Anyone else -- I'm sorry to interrupt. Go
15 ahead.

16 A. No, I'm sure there are others. I just
17 can't recall any more at this point.

18 Q. Okay. So have you listed for me all of the
19 entities that you believe are defendants in this
20 case?

21 A. Well, I believe those are defendants.
22 There -- I also believe there are more of them that
23 I don't remember right now.

24 Q. Okay. So you've listed for me the

1 companies that you believe are defendants in this
2 case with the proviso that you believe there are
3 other defendants in this case that you can't name
4 off the top of your head. Is that fair?

5 A. That's very fair. Thank you.

6 Q. Okay. On page 6 of your report, you say,
7 quote, "My Report addresses the economic harms
8 imposed by the sales and distribution of
9 prescription opioids from 2006 through 2018."

10 Do you see that?

11 A. Yes, I do.

12 Q. Okay. It's the second sentence of
13 Paragraph 11 on page 6.

14 A. I have it right here.

15 Q. Okay. What do you mean by "sales and
16 distribution of prescription opioids"?

17 A. Well, I think these have just common
18 meanings, that the distribution of prescription
19 opioids is the, you know, movement from the
20 manufacturer through the -- to the retail.

21 And the sales are the -- the thing that
22 takes place when someone buys something.

23 Q. So as you use the terms in your report, do
24 sales and distribution mean different things?

1 A. You mean is sales different than
2 distribution?

3 Q. Yes. As you use the term in your report.

4 A. Well, they're -- they, I think, refer to
5 somewhat different things as part of the process by
6 which prescription opioids move from the
7 manufacturer to the consumer.

8 Q. Okay. I'm just trying to understand
9 whether when you use the phrase "sales and
10 distribution," that's referring to one thing or
11 it's referring to two things.

12 A. Oh.

13 Q. And I believe what you've said is it means
14 two different things. One is distribution means
15 the shipment of the goods from manufacturer to
16 retail; and the sales is when someone at the retail
17 level is -- is buying or selling something.

18 Is that a fair encapsulation of how you
19 mean the terms?

20 MR. PENDELL: Objection.

21 A. Well, I -- it's -- in response to your
22 question, I was answering -- attempting to give a
23 kind of definition of what distribution is and what
24 sales are. It's one, you know, kind of process in

1 a way in which the drugs move from the manufacturer
2 to the retail.

3 I'm not sure what you're getting at in
4 your question.

5 Q. Okay. When you refer to "sales and
6 distribution of prescription opioids," you're
7 referring to distribution as going from
8 manufacturer to retail. Is that accurate?

9 MR. PENDELL: Object to the form.

10 A. You know, I haven't thought of this as a
11 kind of a narrow issue. I'm pausing to think about
12 your question.

13 So I would say, you know, sales and
14 distribution - you know, unless I'm missing
15 something subtle here that I just don't see - yes,
16 refers to the movement of opioids from, you know,
17 the manufacturer ultimately to -- ultimately to
18 retail, and from there, being sold to consumers.

19 Q. And in this report, you are quantifying the
20 harms imposed by all sales and distribution of
21 prescription opioids from 2006 through 2018.
22 Correct?

23 A. Well, yes. These are net harms. But yes.
24 Other than that, I agree with your statement.

1 Q. And so in quantifying the harms resulting
2 from the sale or distribution of prescription
3 opioids, you didn't exclude any prescription opioid
4 sales or distributions during that time period,
5 2006 to 2018. Correct?

6 A. Didn't exclude.

7 MR. PENDELL: I'm just going to object
8 to the form of that question.

9 But you can answer, Professor.

10 A. Well, I considered, in total, the net harms
11 or net costs associated with the sale and
12 distribution of prescription opioids. I didn't
13 think of myself as excluding anything.

14 Q. Right. But I'm trying to say, was there
15 some category of prescription opioids that were
16 sold and distributed that you excluded from your
17 quantification of the harms?

18 A. No, I don't think so. I think I included
19 everything.

20 Q. Did you separate out the harms that were
21 imposed by the sales and distribution of
22 prescription opioids from 2006 through 2018 by
23 actors other than the defendants in this case?

24 A. I'll get to that, but I want to be clear.

1 You -- I don't object to the word "harms," but
2 costs would be a more accurate phrase in what I
3 came up with.

4 MR. PENDELL: I'll -- I'll object to
5 the word.

6 Go ahead.

7 A. In response to your question, my assignment
8 was not to allocate responsibility for the costs
9 across, you know, different parties in the case.

10 Q. Okay. So did you separate out the economic
11 harms that were imposed by the sales and
12 distribution of prescription opioids from 2006
13 through 2018 by actors other than the defendants in
14 this case?

15 MR. PENDELL: Objection to form.

16 A. My -- my role was to estimate the total,
17 and I understand that not to have involved
18 separating out the contribution of different
19 actors.

20 Q. During the time period covered by your
21 report - 2006 through 2018 - who did you understand
22 to be the whole -- wholesale distributors of
23 prescription opioids in Cabell County, West
24 Virginia?

1 A. My understanding goes -- would be based on
2 the defendants in this case, and that would be the
3 basis of my understanding of who was doing the
4 distributing.

5 Q. Can you list them then? Who you believe
6 were wholesale distributors of prescription opioids
7 in Cabell County, West Virginia between 2006 and
8 2018?

9 MR. PENDELL: Objection.

10 A. Yeah, I don't know the market shares - if I
11 could use that term - in Cabell County of the role
12 of different distributors. So I can't answer it
13 from that perspective.

14 The perspective I can answer it from is
15 who are listed defendants in the case.

16 Q. Okay. Were there sellers of prescription
17 opioids in Cabell County, West Virginia between
18 2006 and 2018 who did not get the prescription
19 opioids they sold from wholesale distributors?

20 MR. PENDELL: Object to the form.

21 A. I'm not sure.

22 Q. Okay. Are you able to identify whether
23 there were any sellers of prescription opioids in
24 Cabell County, West Virginia who did not get

1 prescription opioids they sold from wholesale
2 distributors?

3 MR. PENDELL: Objection.

4 A. No, I'm not able to identify any seller of
5 that category.

6 Q. Okay. Is it accurate to say that you
7 quantified the economic harms imposed by the sale
8 and distribution of all prescription opioids from
9 2006 through 2018 and not just the economic harms
10 of selling and distributing prescription opioids
11 above a certain threshold amount?

12 MR. PENDELL: Objection to form.

13 A. Yes. My understanding of my assignment
14 would be to -- to, you know, account the net costs
15 of all prescription opioids, you know, without
16 attempting to segment them into various categories.

17 Q. So did you -- did you segment the economic
18 harms imposed by the sale and distribution of
19 prescription -- prescription opioids between an
20 appropriate amount of sales and distribution versus
21 an inappropriate amount of sale and distribution?

22 MR. PENDELL: Objection to form.

23 A. My task was to consider the total, and
24 issues with respect to clinical appropriateness

1 were not within my purview in this report.

2 Those inputs came from elsewhere.

3 Q. Okay. So again, you quantified what you
4 call the net economic harm imposed by the sale and
5 distribution of all prescription opioids in Cabell
6 County, West Virginia from 2006 through 2018,
7 right?

8 A. That's very close. I would say, "net
9 cost," though. But yes, it's the net cost over
10 that time period of the sale and distribution of
11 all prescription opioids.

12 Q. So you think it should say, "net costs"
13 rather than "net economic harms"?

14 A. I like "net costs" better, yes.

15 Q. Okay. And then you didn't do anything to
16 further separate out or segment or tease out the
17 economic harms based on an appropriate level of
18 sales and distribution versus an inappropriate
19 level of sales and distribution.

20 MR. PENDELL: Objection to form.

21 Q. Right?

22 A. Well, that's, I think, the same question I
23 got a minute ago, and my answer is the same: That
24 my job was to look at the total net -- the net

1 costs of -- of the sale and distribution of all
2 prescription opioids over that time period.

3 And issues with respect to clinical
4 appropriateness were not part of my assignment.

5 Q. Okay. Did you separate out or segment out
6 or tease out the net economic harms or costs
7 imposed by an excessive amount of sales and
8 distributions of all prescription opioids versus a
9 reasonable level of sale and distribution of
10 prescription opioids?

11 MR. PENDELL: Objection.

12 A. Well, "reasonable" and "excessive" in this
13 context, I think, are clinical terms. At least I
14 understand them to be clinical terms. Issues which
15 were addressed by other plaintiff experts. I used
16 those opinion -- opinions as inputs, but my job was
17 to look at the total and look at the net.

18 Q. Okay. Without regarding to a dividing line
19 between appropriate and inappropriate.

20 A. Well, that would have been factored in by
21 the clinical experts.

22 Q. Okay. Without regard to the dividing line
23 between reasonable and unreasonable.

24 A. Again, that would have been factored in by

1 the clinical experts.

2 Q. Without regard to the dividing line between
3 a reasonable amount of sale and distribution of
4 opioids versus an excessive amount of sale and
5 distribution of prescription opioids.

6 A. I also hear that as a question about
7 clinical matters, which the clinical experts would
8 have taken into account and used -- and I would use
9 those inputs in my report.

10 Q. And do you articulate the dividing line
11 between a tolerable level of sales and distribution
12 of prescription opioids versus an intolerable
13 level?

14 MR. PENDELL: I'll object.

15 A. Well, I don't know what "intolerable"
16 means, but I don't think I need to know the answer
17 to that in your question.

18 That if it's a clinical matter, then,
19 again, it was the clinical side of the expertise in
20 this case that would have made those
21 determinations.

22 Q. And do you articulate the dividing line
23 between the amount of sale and distribution of
24 prescription opioids that constitutes a nuisance

1 versus the level of sale and distribution of
2 prescription opioids that does not constitute a
3 nuisance?

4 A. You know, I wasn't asked that question. I
5 was asked with respect --

6 Sorry, there's an insect trying to get
7 on the video.

8 No, I was asked the question of: In
9 total, did sale and distribution of prescription
10 opioids constitute a public nuisance? Not whether
11 there might have been, you know, some other
12 situation in which they could be divided into those
13 that were and those that were not.

14 Q. And when you quantify the net economic
15 harms or the net economic costs imposed by the
16 sales and distribution of prescription opioids from
17 2006 through 2018 in Cabell County, West Virginia,
18 you're quantifying all of those, not the ones that
19 are attributable to conduct of particular actors.

20 Is that correct?

21 A. Yes, I think that's correct. My job was to
22 pick up the story at the point of assessing the net
23 costs of the sale and distribution. Why that took
24 place was not part of my assignment.

1 Q. So did you take any steps to eliminate from
2 your calculations the economic harms or the costs
3 of prescription opioids that were sold and
4 distributed by the defendants in this case without
5 breaching any duty?

6 MR. PENDELL: Objection.

7 A. I think the answer to that is I did not try
8 to segment the sale and distribution of
9 prescription opioids nor the economic costs
10 associated with them according to a categorization
11 of the nature of the sale and distribution.

12 Q. And are you offering any opinion of what
13 portion of the net economic harms or costs you
14 quantified are due to the sale and distribution of
15 prescription opioids by the defendants in this
16 case?

17 A. I've got the total in my report, and I --
18 and so I would say -- I also did not - as part of
19 my assignment - apportion that to particular
20 defendants. Or non-defendants. I just -- I didn't
21 do it.

22 Q. And did you do any apportionment of the net
23 economic harms or costs that were imposed by the
24 sales and distribution of prescription opioids from

1 2006 through 2018 in Cabell County, West Virginia,
2 to the unlawful sale or the unlawful distribution
3 of prescription opioids by the defendants?

4 MR. PENDELL: Objection.

5 A. Well, I wouldn't be in a good position to
6 say what is lawful and unlawful, but I think I can
7 answer the question anyway.

8 My assignment dealt with the total, and
9 I didn't attempt to apportion it into a category of
10 lawful and unlawful, even if I were able to know
11 what that meant in this case.

12 Q. Did you make any assessment of which sales
13 and distribution of prescription opioids by
14 defendants were the result of filling and shipping
15 a suspicious order?

16 MR. PENDELL: Objection.

17 A. My -- again, my emphasis was on the total,
18 and this would be a different way to think about a
19 partition of the shipments and sales, and I didn't
20 partition it in this way either.

21 Q. Did you make any assessment of which of the
22 prescription opioids that were sold or distributed
23 by defendants in this case were justified by a
24 clinical need?

1 MR. PENDELL: Objection.

2 A. Well, certainly not at the individual level
3 did I attempt to determine whether individual
4 prescriptions were a result of medical need. But
5 again, this is in the clinical realm and was
6 something that was considered by the clinical
7 experts in this case, and they provided helpful
8 input into my report regarding that.

9 Q. Well, you didn't do it at the individual
10 level; you also didn't do it at the macro level,
11 correct?

12 A. Well, I wanted to, you know, be clear what
13 I didn't do. And, yes, I didn't do it at the
14 individual level. And also, yes, I relied on
15 clinical inputs for the macro level.

16 Q. Did you make any assessment of which of the
17 prescription opioids that were sold and distributed
18 by defendants were used for
19 scientifically-acceptable treatment?

20 MR. PENDELL: Objection.

21 A. This is a clinical question as I hear it,
22 and my assignment had to do with the total, and
23 issues that have to do with the clinical component
24 of which would be acceptable, which would be

1 unacceptable, were dealt with by clinical experts
2 in this case.

3 Q. Did you make any assessment of which of the
4 prescription opioids that were sold and distributed
5 by defendants in this case were taken by people
6 pursuant to prescriptions written to them by their
7 treating physician?

8 A. That's another partition of the total that
9 I did not undertake.

10 Q. Did you make any assessment of which of the
11 prescription opioids that were sold and distributed
12 by defendants in this case were dispensed by
13 pharmacies to patients pursuant to legitimate
14 prescriptions written by licensed physicians?

15 MR. PENDELL: I'll object.

16 Go ahead.

17 A. Well, this is a new -- a different form of
18 partition, which I did not undertake. My
19 assignment had to do with a total.

20 Q. Did you make any assessment of which of the
21 prescriptions that were sold and distributed by
22 defendants were diverted long after they left the
23 closed distribution system?

24 MR. PENDELL: Objection.

1 A. No, I didn't make a quantification of
2 diversion in this case.

3 Q. Is the work you did based on the premise
4 that all sales and all distribution of prescription
5 opioids by the defendants in this case was
6 unlawful?

7 A. No.

8 Q. Then did you differentiate at all between
9 the economic harms or costs that were imposed by
10 the unlawful sale and distribution of prescription
11 opioids versus the lawful sale and distribution of
12 prescription opioids?

13 MR. PENDELL: Objection.

14 A. I think this partition has been talked --
15 been asked about previously.

16 Again, I did not partition on this
17 basis. I don't -- I wouldn't know how to do it.
18 It's not within my expertise. And my assignment
19 was to compute the net economic costs of the total.

20 Q. Does --

21 MR. KEYES: Strike that.

22 Q. Is reduction in pain a benefit of using
23 prescription opioids in accordance with like
24 scientifically acceptable clinical criteria?

1 A. Yes, it might be.

2 Q. Are opioids medically indicated for severe
3 pain associated with trauma?

4 MR. PENDELL: Objection.

5 A. This is, of course, outside the expertise
6 of an economist, but I've seen reports that would
7 support that. And I believe some of the medical
8 experts in this case also would agree with that.

9 Q. Are opioids medically indicated for severe
10 post-surgical pain?

11 MR. PENDELL: Objection.

12 A. This is outside the scope of my expertise,
13 but I think that they may be.

14 Q. Are opioids medically indicated for severe
15 pain associated with cancer end-of-life care?

16 MR. PENDELL: Objection. Outside the
17 scope.

18 A. This is outside the scope of my expertise.
19 But they may be.

20 Q. Could you turn to Paragraph 56 of your
21 report?

22 MR. PENDELL: Andy, at some point --
23 you can finish this up. But I want to take a break
24 if we can. We've been going for a while.

1 MR. KEYES: Sure. Just give me a few
2 more questions.

3 MR. PENDELL: No problem. No problem.

4 Q. Professor, are you at Paragraph 56 of your
5 report?

6 A. Yes.

7 Q. Okay.

8 A. What paragraph -- sorry, wait. I was on
9 page -- hold on.

10 Q. Yeah, paragraph 56.

11 MR. PENDELL: Page 32, Professor.

12 A. Yeah, I'm there.

13 Q. Okay. Do you see the sentence on the
14 fourth line that says, quote, "Opioids are
15 medically indicated for severe pain associated with
16 trauma, post-surgery and cancer end-of-life care"?

17 A. Yes, I see that sentence.

18 Q. And you included that in your report.

19 A. There it is.

20 Q. Okay. Do you agree that opioid drugs are
21 more effective than other pain relievers for acute
22 traumatic pain?

23 MR. PENDELL: Objection.

24 A. No, that's way outside my area of

1 expertise. I'm sorry, I can't give you an opinion
2 about that.

3 Q. Okay. Do you agree that opioid drugs can
4 be critical for short-term severe pain relief in
5 acute situations?

6 MR. PENDELL: Objection.

7 A. Oh, I don't know. They might. It's also
8 outside my area.

9 Q. Do you agree that in short term acute pain
10 situations such as during surgery or immediately
11 post surgery, prescription opioids can be an
12 important mechanism of pain relief?

13 MR. PENDELL: Objection.

14 A. Outside the scope. Maybe.

15 MR. KEYES: Why don't we take a break.

16 MR. PENDELL: Thanks.

17 MR. KEYES: Ten minutes? Go off the
18 record?

19 MR. PENDELL: Sure.

20 VIDEO OPERATOR: Going off the record.
21 The time is 10:28 a.m.

22 (A recess was taken after which the
23 proceedings continued as follows:)

24 VIDEO OPERATOR: We're back on the

1 record. The time is 10:38 a.m. This begins Media
2 Unit 3 in the deposition of Tom McGuire.

3 BY MR. KEYES:

4 Q. Professor McGuire, is improvement in
5 function a benefit of using prescription opioids in
6 accordance with scientifically acceptable clinical
7 criteria?

8 MR. PENDELL: Objection. Outside the
9 scope.

10 A. That's really outside the scope of my
11 expertise. It may be.

12 Q. Do opioids help increase the mobility of
13 the patient?

14 MR. PENDELL: Same objection.

15 MR. KO: Also object to the form.

16 A. They -- this is outside my area of
17 expertise. It's kind of a clinical outcome sort of
18 question. I'm not in a position to answer.

19 Q. Can opioids increase a person's ability to
20 participate in life activities other than working a
21 job?

22 MR. PENDELL: Objection.

23 A. This is something else that's outside my
24 expertise. I really wouldn't be in a good position

1 to say.

2 Q. Can opioids be properly used to decrease a
3 patient's anxiety about a surgical procedure?

4 MR. PENDELL: Objection to form.

5 A. That's outside my area. I really have no
6 idea.

7 Q. Can opioids be used to decrease a patient's
8 anxiety about an injury?

9 MR. PENDELL: Objection.

10 A. That's outside my area. I have no idea.

11 Q. Can opioids help allow a patient to have a
12 future perspective that significant pain does not
13 allow?

14 MR. PENDELL: Objection.

15 A. Out -- I -- that's not my area. I really
16 -- I have no idea.

17 Q. Do you agree that the benefits of opioids
18 have been proven useful in palliative care
19 settings?

20 MR. PENDELL: Objection to form.

21 A. "Proven" sounds like a statement about
22 randomized controlled trials in these settings, and
23 I -- I'm really not directly familiar with that.

24 Q. Can prescription opioids be appropriately

1 used in the palliative care setting?

2 MR. PENDELL: Objection. Outside the
3 scope.

4 A. That's outside my area. I really -- I
5 wouldn't be in a position to say.

6 Q. Can prescription opioids be appropriately
7 used to address pain experienced by patients with
8 terminal cancer?

9 MR. PENDELL: Objection to form.

10 A. Could -- I'm sorry, I wasn't sure I got the
11 wording of that. Would you please provide --

12 Q. Sure. Sure. Can prescription opioids be
13 appropriately used to address pain experienced by
14 patients with terminal cancer?

15 MR. PENDELL: Objection.

16 A. This is outside my area, but they may be.

17 Q. Can prescription opioids be appropriately
18 used in hospice?

19 MR. PENDELL: Objection to form.

20 A. Well, of course, they can -- actually, this
21 is outside my area. I'm just gonna say I really --
22 I'm not in a position to say.

23 Q. Did you conduct any research into the
24 benefit of using prescription opioids for hospice

1 patients?

2 A. I would say, no, I did not conduct any such
3 research.

4 Q. Did you attempt to measure the benefit of
5 using prescription opioids with hospice patients?

6 A. Well, this is something that I relied on
7 input from clinical experts for. I didn't make an
8 independent determination.

9 Q. Okay. But did you attempt to measure the
10 benefit of using prescription opioids with hospice
11 patients?

12 MR. KO: Asked and answered.

13 A. Well, as I said in the first time this was
14 asked, this was something that I relied on clinical
15 input for, and I didn't make an independent
16 determination.

17 Q. Did you conduct any research into using
18 prescription opioids to address pain experienced by
19 patients with terminal cancer?

20 A. I didn't conduct any of my own research on
21 that subject.

22 Q. Did you attempt to measure the benefit of
23 using prescription opioids to address pain
24 experienced by patients with terminal cancer?

1 A. This is -- my answer is similar to the
2 previous set of questions, which is that I relied
3 on clinical input for these matters, and I didn't
4 -- I didn't undertake any independent
5 determination.

6 Q. Did you attempt to measure the benefit of
7 using opioids in palliative care settings?

8 A. I also would -- in this context, would have
9 relied on input from clinical experts, and I didn't
10 make any independent determination.

11 Q. Did you attempt to measure the benefit of
12 using prescription opioids to provide relief from
13 acute pain suffered by mothers who had Caesarean
14 sections?

15 MR. KO: Object to the form.

16 A. Could -- would you remind repeating that?
17 I want to make sure I understand the form of what
18 you just asked.

19 Q. Sure. Did you attempt to measure the
20 benefit from using prescription opioids to provide
21 relief from acute pain being suffered by mothers
22 who had undergone a Caesarean section?

23 A. This is a clinical area that I relied on
24 inputs from clinicians for my purposes. I didn't

1 attempt an independent determination.

2 Q. Did you attempt to measure the benefit of
3 using prescription opioids to provide relief from
4 acute pain for people who had a root canal?

5 A. This is the same. Clinical input was what
6 I -- on this subject, is what I took into account.
7 I didn't investigate root canals on my own.

8 Q. Did you attempt to measure the benefit of
9 using prescription opioids to provide relief from
10 acute pain being suffered by people who had their
11 wisdom teeth extracted?

12 A. This is, again, an area in which I relied
13 on clinical input. I didn't attempt any
14 independent determination.

15 Q. Did you attempt to measure the benefit of
16 using prescription opioids to provide relief from
17 acute pain being suffered by people who had
18 orthopedic surgery?

19 A. This is something I relied on clinical
20 input for. I didn't attempt an independent
21 determination.

22 Q. Did you attempt to quantify the benefit
23 from using prescription opioids to provide relief
24 from acute pain suffered by patients who had just

1 had surgery?

2 MR. PENDELL: Object to the form.

3 A. Again, this is a subject I would have
4 relied on clinical input for. I didn't make an
5 independent determination.

6 Q. Did you attempt to measure the benefit of
7 using prescription opioids to decrease patient
8 anxiety about their injury or a surgical procedure?

9 MR. PENDELL: Objection to form.

10 A. This is something I relied on clinical
11 input for. I didn't attempt an independent
12 determination.

13 Q. Did you attempt to measure the benefit of
14 using prescription opioids to increase a patient's
15 mobility?

16 A. I relied on clinical input for matters like
17 this. I didn't attempt an independent
18 determination.

19 Q. Did you attempt to measure the benefit of
20 using prescription opioids to assess a patient's
21 function to improve?

22 MR. PENDELL: Object to the form.

23 Asked and answered.

24 A. You know, I don't -- I'm sorry, I don't

1 understand that question.

2 Q. Yeah, so have you -- did you attempt to
3 measure the benefit of using prescription opioids
4 to help a patient's functional movement improve?

5 MR. PENDELL: Objection.

6 A. Sorry. I would have relied on clinical
7 input here. I didn't attempt an independent
8 determination.

9 Q. And you've said many times now that you
10 would have relied on the judgment of clinical
11 experts. Did I get that right?

12 MR. PENDELL: Objection.

13 A. Yeah, with respect to the last series of
14 questions, yes.

15 Q. Okay. What do you mean you "would have"
16 relied on the judgment of clinical experts?

17 A. Maybe that conditional "would" could be
18 replaced by "I did rely."

19 Q. Okay. What do you mean, you did rely on
20 the judgment of the clinical experts?

21 A. Well, there is a particular section of my
22 report that addresses the issue of net costs of
23 prescription opioids from a clinical point of view,
24 and my understanding is the clinical expert -

1 primarily Doctor Lembke - would have considered the
2 questions you asked me.

3 They would be much better directed to
4 her, and she provided a global answer to the
5 question of whether the net costs -- whether there
6 were net costs in relation to whatever potential
7 benefits there were, and the answer was
8 unequivocal, and the answer was the costs vastly
9 exceeded the benefits.

10 Q. So you're relying on Doctor Lembke's
11 opinion that the costs vastly outweigh the
12 benefits?

13 A. I am relying on that opinion, yes.

14 Q. And does Doctor Lembke offer that opinion
15 on a macro level or on a patient-by-patient level?

16 MR. PENDELL: To form.

17 A. Well, the -- you know, the macro is the sum
18 of the patients, so I think she's -- my
19 understanding of what she's done is addressing that
20 for the -- at a macro level, at which is the -- you
21 know, it's the right way in this context to think
22 about the impact of prescription opioids.

23 Q. Can you point me to where in your report
24 you rely on Doctor Lembke's judgment that the costs

1 of prescription opioids vastly outweigh the
2 benefits of prescription opioids?

3 A. Well, I think beginning on Paragraph 63 of
4 my report, and particularly on Paragraph 64 where
5 it says, "far outweigh the benefits." That's my
6 under -- that's pretty much the same thing.

7 Q. And -- you just referenced Paragraph 64?

8 A. Of my report, yes.

9 Q. Okay. And the excerpt from Doctor Lembke
10 that you're referring to expresses her view "that
11 at a population level, the risks of long-term
12 opioids for chronic pain far outweigh the
13 benefits"?

14 A. Yes, that's what I'm talking about.

15 Q. Okay. And here, her view is at a
16 population level, correct?

17 A. Yes. That's at a population level.

18 Q. And she's talking about the risks of
19 long-term opioids for chronic pain outweighing the
20 benefits. Correct?

21 A. That's correct.

22 Q. Where does Doctor Lembke offer the opinion
23 that the costs of prescription opioids vastly
24 outweigh the benefits of prescription opioids when

1 used to treat acute pain rather than chronic pain?

2 A. Well, I'd have to look back through the
3 quotes here.

4 Q. Okay. Are you doing that now?

5 A. I can do that now.

6 Well, in -- all right. You may not
7 find the word "vastly" in my report, but there's
8 several Lembke statements here that I believe
9 support that, beginning in Paragraph 63.

10 The Lembke quote, "The best available
11 evidence...found that non-opioid medications"
12 "provide equivalent or greater pain relief, while
13 opioids confer significantly greater risks."

14 Now, the way I would interpret that
15 statement is that there are less costly ways to get
16 the same benefits, but the cost of risks
17 significantly -- maybe that's not vastly, but
18 significantly exceed the benefits.

19 And then -- well, I could -- I'm not
20 sure what else you want me to do here, but she goes
21 on to say that in a clinical trial, that there's
22 very little difference between opioids and even a
23 placebo.

24 Then we talked about Paragraph 64,

1 which is that there's -- at the population level,
2 for a very -- at least a very large segment of
3 what's going on here, the risks far outweigh the
4 benefits.

5 And let me just remind myself what else
6 is going on here with Lembke for one sec.

7 Okay. I think this paragraph in
8 contrast that I quote in my -- my Paragraph 65 is
9 pretty definitive with respect to the very
10 significant risks associated with prescription
11 opioids in relation to alternatives which are
12 equally effective.

13 Q. Does Doctor Lembke offer the opinion that
14 opioids are not indicated for acute pain?

15 A. I -- gosh. Well, I'm -- I'm again looking
16 at this paragraph to refresh myself what I said
17 about Lembke, and there is a sentence in there that
18 said, "Although opioids are indicated for acute
19 pain" -- so she would --

20 My assumption based on that statement
21 is that she did not say they were not indicated in
22 all circumstances.

23 Q. Okay. Does -- based on your review and
24 your understanding of what Doctor Lembke has said,

1 does Doctor Lembke say that the costs of
2 prescription opioids outweighs the benefits of
3 prescription opioids when prescription opioids are
4 used to treat acute pain?

5 MR. PENDELL: Objection.

6 A. Well, I did come to that conclusion from
7 this. Equivalent relief from other less risky
8 alternatives, that would say to me the net benefits
9 are outweighed by the cost.

10 Q. Are you relying on anything else in these
11 excerpts from Doctor Lembke for your conclusion?

12 A. I'm relying on Lembke for this. And I also
13 mentioned Waller.

14 And it's very consistent. You know,
15 there's a -- according to my reading of Waller,
16 there's, you know, a small set of indications, you
17 know, in relation to a very large medical risk.

18 Q. Are you relying on anyone besides what
19 Doctor Lembke said in her report and what Doctor
20 Waller said in his report?

21 A. I'm relying on these two clinicians.

22 Q. Okay. And you are relying on those two
23 clinicians for the proposition that all of the
24 benefits I asked you questions about are outweighed

1 by the costs?

2 MR. PENDELL: Objection.

3 A. I'm relying on these clinical inputs for
4 the statement that the net costs are positive of
5 prescription opioids.

6 Q. And did you do any calculation of the
7 benefits of these prescription opioids? Or are
8 you, instead, just relying on what you understand
9 Doctor Lembke and Doctor Waller to have said?

10 MR. PENDELL: Objection.

11 A. I'm relying on their opinion that the net
12 -- that the costs outweigh the benefits and that
13 implies to me that the net costs are positive.

14 Q. And are you relying on anything else
15 besides Doctor Lembke and Doctor Waller for that
16 proposition?

17 A. No, I'm just relying on -- I'm just relying
18 on those two clinicians.

19 Q. And therefore having relied on Doctor
20 Lembke and Doctor Waller for that proposition, you
21 did not undertake to try to quantify or measure any
22 of the benefits of using prescription opioids.

23 MR. PENDELL: Objection, asked and
24 answered.

1 MR. KO: Objection.

2 A. Well, my -- my task here was to estimate
3 the net. And the net is cost minus benefits. So
4 if I know the net -- or I have reliable opinions
5 that the net is on the cost side, then that tells
6 me what I need to know as an economist, and I can
7 then conservatively - as I did in my report - treat
8 that as zero.

9 Q. Right. So to determine the net cost, you
10 need to determine the costs and the benefits.
11 Correct?

12 A. Well, that's -- I mean, in a very general
13 way, that would be correct. And there's different
14 realms in which that question is asked here, and
15 one of them is a clinical realm in which I relied
16 on Lembke and Waller.

17 Q. And on the cost side, you purported to
18 independently measure and quantify those costs.

19 A. In some case -- well, yes, in much of my
20 report, I did quantify those costs.

21 Q. And on the benefits side, rather than
22 attempting to measure them, you are relying on
23 Doctors Lembke and Waller for what you understand
24 them to be saying, which is the costs outweigh the

1 benefits.

2 MR. PENDELL: Objection.

3 A. Well, I'm relying on the clinicians, Lembke
4 and Waller, to consider the clinical benefits and
5 costs of prescription opioids and to come to a
6 determination of - from their perspective - whether
7 the clinical costs outweigh the clinical benefits,
8 and that's how I read their reports.

9 Q. Turning to the section of your report on
10 mortality, I think starts with Paragraph 38 --

11 Are you there?

12 A. Yes.

13 Q. Okay. And you explain that you rely on
14 Doctor Keyes' estimate of the number of deaths that
15 are due to prescription opioids. Correct?

16 A. Yes, I see that.

17 Q. And when you say, "due to prescription
18 opioids," do you mean due to the sale and
19 distribution of prescription opioids, or something
20 else?

21 A. I mean by the sale and distribution of.

22 Q. Okay. So you're relying on Doctor Keyes'
23 estimate of the number of deaths that are due to
24 the sale and distribution of prescription opioids?

1 A. Yes.

2 Q. Did you do any independent work yourself to
3 estimate the number of deaths that are due to the
4 sale and distribution of prescription opioids?

5 A. In this case, I relied on a very good
6 epidemiologist, Professor Keyes, to provide those
7 estimates.

8 Q. Right. But my question was whether you did
9 any independent work.

10 A. Oh.

11 Q. Did you do any independent work yourself to
12 estimate the number of deaths that are due to the
13 sale and distribution of prescription opioids.

14 MR. PENDELL: Objection to form.

15 A. Well, the numbers here are ones that
16 Professor Keyes provided. I obviously worked in
17 this area to assess the costs, but the numbers are
18 from Professor Keyes.

19 Q. Okay. And the numbers that Professor Keyes
20 supplied are -- were originally set out in Table 2
21 of your report on page 20, correct?

22 A. That's correct.

23 Q. Okay. And looking at the numbers in Table
24 2, when you got these numbers from Professor Keyes,

1 did you do anything to see if they seemed
2 reasonable to you?

3 A. Yes.

4 Q. What did you do to evaluate whether the
5 numbers that Professor Keyes had supplied seemed
6 reasonable to you?

7 A. Well, I think I looked at the magnitude
8 overall in terms of what I would have expected for
9 a community of the size of the Cabell community,
10 and then roughly the timing of those.

11 I'm not surprised that they, you know,
12 peaked in the -- whatever it is, 2017, in
13 accordance with local reports. And I'm also -- I
14 also would have looked at the composition in terms
15 of direct and indirect prescription opioids.

16 And this also makes sense to me.

17 Q. So you -- when you got these numbers that
18 are reflected in Table 2 from Professor Keyes, you
19 did look at them, and you did --

20 A. Yes.

21 Q. -- some kind of reasonable evaluation
22 yourself?

23 A. Well, I looked at them and I just, you
24 know, saw -- sort of mentally, you do this -- that

1 you get the table and you just, you know, see if it
2 makes sense to you. You look at it, and you know,
3 if it doesn't, you would say something.

4 But this made sense to you.

5 Q. Okay. It made sense to you, and I take it
6 then you didn't say anything to Professor Keyes
7 about these numbers. Is that correct?

8 MR. PENDELL: Objection.

9 A. Well, I don't know if I said anything about
10 the numbers, which is a more general question. But
11 I don't recall any criticism of these numbers that
12 I had -- I conveyed to her.

13 Q. And when you were looking at them to see if
14 the numbers made sense, did you consult any other
15 sources of information, or was it just on the face
16 of it, it looked reasonable to you?

17 MR. PENDELL: Objection to the form.

18 A. I think in this case, I looked at the table
19 and it was my own kind of review based on what I
20 know about the situation, you know, was what I
21 would have used to, you know, run a kind of mental
22 check on the numbers.

23 Q. Okay. When you were doing the mental check
24 and you were looking at Professor Keyes' numbers,

1 did it occur to you that it seemed wrong or odd
2 that under her calculations, in 2018, 100 percent
3 of all deaths due to opioids were due to
4 prescription opioids?

5 MR. PENDELL: Objection to form.

6 A. No, it didn't occur to me.

7 Q. Okay. How about the fact that under the
8 numbers that Professor Keyes supplied, 97 percent
9 of all deaths due to opioids were due to
10 prescription opioids, according to her?

11 MR. PENDELL: Objection.

12 A. Well, again, that doesn't -- it didn't
13 strike me at the time. But I know there's a lot
14 that are directly due and then a big chunk are
15 indirectly due. So it didn't -- didn't strike me
16 as odd at the time.

17 Q. And for your valuation of deaths, you use
18 the value of a statistical life?

19 A. Yes, I do.

20 Q. Other than in the opioid cases in which
21 you've been a testifying expert, have you ever used
22 the value of a statistical life to quantify costs
23 in a lawsuit?

24 A. No. This -- this is the only -- these are

1 the only settings in the opioid cases in which I
2 had that as part of my assignment.

3 Q. Turning to Morbidity, which is a section
4 that starts on page 22 of your report -- are you
5 there?

6 A. Yes.

7 Q. -- you explain that you calculate morbidity
8 costs by multiplying the number of OUD cases due to
9 prescription opioids by the excess health care
10 costs associated with the treatment of OUD and
11 sequelae. Correct?

12 A. That's basically correct, yes.

13 Q. Did you independently research the number
14 of OUD cases that are due to prescription opioids?

15 A. In Cabell?

16 Q. Yes.

17 A. Again, this is something that I relied on
18 Professor Keyes for with respect to these counts.
19 They are directly taken from her report.

20 Q. Okay. So did you do any independent
21 research regarding the number of OUD cases in
22 Cabell County that are due to prescription opioids?

23 MR. PENDELL: Objection to form.

24 A. Well, you know, I worked in this area and

1 used the numbers, but the numbers themselves came
2 directly from Keyes.

3 Q. Okay. So you took from the Keyes report
4 the number of residents of Cabell County with OUD?

5 A. Yes.

6 Q. And you took from the Keyes report the
7 number of OUD cases in Cabell County that she
8 attributes directly to prescription opioids.

9 A. That's correct; yes, I did.

10 Q. And you took from the Keyes report the
11 number of OUD cases in Cabell County that she says
12 are not directly due to prescription opioids but
13 are indirectly due to prescription opioids.

14 A. That's also correct; I did.

15 Q. Did you do anything to test any of those
16 numbers?

17 MR. PENDELL: Objection.

18 A. I read what she did. I thought it was a
19 reasonable approach. That's -- I'm not sure what
20 you mean by "test" other than kind of run it by
21 yourself.

22 Q. Okay. In Paragraph 48 of your report, you
23 say "In the later years, cases of OUD due to
24 non-prescription opioids attributable to

1 prescription opioids make up a larger share of the
2 total."

3 Do you see that?

4 A. I do see that, yes.

5 Q. What you do mean by that statement?

6 A. I mean that the fourth row of Table 4
7 accounts for a larger share of the fifth row in the
8 later years.

9 Q. Why is that, as you understand it?

10 MR. PENDELL: Objection.

11 A. I assume you're not asking a mathematical
12 question.

13 Q. Correct.

14 A. You're asking a question of what?

15 Q. What explains the phenomenon that you say
16 the numbers reflect?

17 A. What is the underlying kind of epidemiology
18 of disease that accounts for this? Would that be
19 what you're trying to get at?

20 Q. Sure. What explains that?

21 MR. PENDELL: Object.

22 Q. As you understand it. If you know.

23 A. I'm waiting for my counsel to object, but
24 hearing none --

1 MR. PENDELL: I did. I object. I
2 objected. I'll be louder.

3 A. Well, there's -- you know, mathematically,
4 that's not what you're asking about. You -- one
5 level down, there's data. This is epidemiologic
6 data that Professor Keyes is the expert in that
7 comes in different types here with respect to OUD,
8 that she classified as directly and potentially
9 indirectly due to prescription opioids, and then
10 she has an approach that - given that data - that
11 generates these numbers.

12 That's, you know, one level of
13 explanation -- that's -- the nature of her work in
14 this is what led to this.

15 There's -- I suppose you can go further
16 than that and ask what are the social processes
17 that account for this, and, you know, there, I
18 think it's stepping way outside my -- my expertise,
19 so I'll just stop right there.

20 Q. Regarding the excess health costs
21 attributable to OUD, you cite three studies?
22 Correct?

23 A. Where -- I'm sorry, where are you now?

24 Q. Turn to Paragraph 53 of your report.

1 A. Okay. Well, that's correct. But there's
2 more cited in Appendix C that are in the same
3 flavor.

4 Q. Okay. Well, you cite the Florence study,
5 right?

6 A. Yes.

7 Q. The Leslie study?

8 A. Yes.

9 Q. And what you describe as a recent study
10 sponsored by the Society of Actuaries?

11 A. Yes. That's Davenport, is the first author
12 of that, yes.

13 Q. And then you say in your report that you
14 "primarily rely on these later two studies to
15 quantify excess health care costs due to OUD."

16 A. That's --

17 Q. Why -- why not rely on the Florence study?

18 MR. PENDELL: Objection.

19 A. Well, it's "primarily rely," and not just
20 the Florence, but you know, other studies have
21 looked at this with broadly the same methodology -
22 which I regard to be appropriate - of mass controls
23 and come up with pretty similar answers.

24 What I was -- the reason that I chose

1 Leslie and Davenport to be my primary sources of
2 reliance for this purpose was to take into account
3 as best I could the fact that this is occurring in
4 Cabell County, not nationally, and Cabell County is
5 different than the nation in some respects that are
6 -- will show up in data, and so I wanted to use
7 that if I could, and these studies allow me to do
8 that.

9 Q. You discuss NAS or neonatal abstinence
10 syndrome in your report? Right?

11 A. Yes, I do. May I just flip to that?

12 Q. Sure.

13 A. Okay, I'm there.

14 Q. You acknowledge that neonatal abstinence
15 syndrome can be caused by in-utero exposure to
16 chemicals other than opioids, right?

17 A. That's my understanding, yes.

18 Q. So an infant can be diagnosed as having NAS
19 even if the birth mother did not take any opioids
20 during the pregnancy. Correct?

21 A. That's my understanding.

22 Q. Okay. Did you do any independent research
23 into the number of NAS births in Cabell County?

24 A. Well, this is, again, a count area where I

1 was aware of your questions that you asked earlier,
2 and this was explicitly part of what Professor
3 Keyes was going to do.

4 So being this is a question of
5 epidemiology, it was left to her, and I relied on
6 her estimates of the number of NAS babies.

7 Q. Okay. So you get from Professor Keyes the
8 estimated number of NAS births in Cabell County?

9 A. That's correct, I do.

10 Q. Did you do any independent research into
11 what percentage of NAS births in Cabell County are
12 attributable to the fetus being exposed to opioids?

13 MR. PENDELL: Object to the form.

14 A. Well, I don't know if "independent
15 research" is the right term. This was a subject of
16 discussion with some of the local medical experts
17 who thought it was predominantly an issue of
18 prescription opioids. But again, I didn't attempt
19 to sort through the local and the national evidence
20 on this, but relied on Professor Keyes to do that.

21 Q. You referred to "local medical experts" in
22 your prior answer. Who are you referring to
23 specifically?

24 A. You know, I don't remember. You know, it's

1 nothing I relied on for my opinion, and if I had, I
2 would have, you know, done my best to write that
3 down.

4 But I remember discussion with a
5 pediatrician who thought NAS is increasing in
6 Cabell County. It's extremely costly. There's
7 follow-up stuff that happens that, you know, is
8 just terrible for the baby and family, and that
9 most of these are attributable to prescription
10 opioids, even if not 100 percent are.

11 Q. For your calculations, you assume that 50
12 percent of the number of NAS births in Cabell
13 County are due to opioids. Correct?

14 A. Well, that's how I proceed here. And I
15 believe I described the basis for that, which was
16 the opinion that a majority were and "majority" is
17 a word that doesn't have a percentage associated
18 with it, but majority is at least 50 percent in my
19 understanding. So that's why I used 50 percent.

20 Q. And in your report, you say that to support
21 your assumption, you're relying on Professor Keyes'
22 statement that, quote, "The majority of neonatal
23 abstinence syndrome among US infants is due to
24 opioid exposure in utero." Correct?

1 A. Yeah. Well, you're reading somewhere.

2 Q. I'm reading from Paragraph 72 of your
3 report --

4 A. Yeah, that's --

5 Q. -- first sentence.

6 A. Yeah, that's -- that sounds accurate, yes.

7 Q. Okay. Do you know what Professor Keyes'
8 statement is based on?

9 A. Well, I would have when I had read her
10 report, but right now, I'm -- I can't tell you.

11 Q. And that statement that you quote from
12 Professor Keyes is about NAS cases among U.S.
13 infants, correct?

14 A. Yes, that's correct.

15 Q. So it's not specific to Cabell County,
16 right?

17 A. Well, it's -- it's U.S. Not -- it's not
18 specific to Cabell County.

19 Q. For the other NAS cases that are not due to
20 in-utero exposure to opioids, what are the
21 chemicals that cause the NAS?

22 MR. PENDELL: Objection to form.
23 Outside the scope.

24 A. I really -- probably other drugs, but it's

1 outside the scope of my report. I'm not in a
2 position to say.

3 Q. Well, what other drugs?

4 MR. PENDELL: Objection.

5 A. Drugs that are potentially addictive, I
6 suppose. But I -- again, it's outside my scope.
7 I'm not sure.

8 Q. Okay. So you started with the number of
9 NAS births in Cabell County, and you got that
10 number from Professor Keyes, and then you assumed
11 that 50 percent of those NAS births were due to
12 opioids. Correct?

13 A. That's correct.

14 Q. And then you needed to determine of the NAS
15 cases that are attributable to the birth mother
16 using opioids during pregnancy, what share are due
17 to prescription opioids. Right?

18 A. That's right. Correct.

19 Q. What does "due to prescription opioids"
20 mean?

21 A. It means here the same thing it meant in
22 the previous table with respect to morbidity. That
23 "due to" would be either directly due to addiction
24 due to prescription opioids or indirectly due to

1 prescription opioids. It's both of those together.

2 Q. Okay. So you're saying, "due to
3 prescription opioids" means directly due to
4 prescription opioids and indirectly due to
5 prescription opioids.

6 A. Yes, that's a good summary.

7 Q. Okay. What does "directly due to
8 prescription opioids" mean?

9 A. Well, it means in the context of morbidity,
10 where this estimate comes from, that the -- that
11 the opioid that the patient is addicted to is
12 prescription opioids.

13 Q. And what does "indirectly due to" mean?

14 A. It means if the -- the you know, person who
15 was ill may be addicted to some other substance -
16 for example, heroin - that the reason they are
17 addicted to heroin is due to prescription opioids.

18 Q. And what does that mean "due to
19 prescription opioids?"

20 A. It means but for their use of prescription
21 opioids, they would not have been addicted.

22 Q. So when you are determining the share of
23 NAS cases that are attributable to using opioids
24 that are due to prescription opioids, does that

1 mean the percentage of NAS cases that are
2 attributable to the birth mother using prescription
3 opioids during pregnancy, or does it mean something
4 else?

5 MR. PENDELL: Objection to form.

6 A. Yes, it means something else.

7 Q. What does it mean?

8 A. It means the -- it's an estimate. And it's
9 an estimate of the share of disease of opioid use
10 disorder that is due to prescription opioids. So I
11 have a number, using this 50 percent conservative
12 assumption, of babies who are born with NAS due to
13 opioids.

14 The ultimate question I need an answer
15 to is how many of them are due to prescription
16 opioids, and so that is -- is estimated by the
17 share of morbidity in Cabell County that is due to
18 prescription opioids in the way that is discussed
19 around the morbidity tables.

20 Q. Okay. And again, those percentages are
21 derived from numbers that you receive from
22 Professor Keyes.

23 A. That's correct.

24 Q. You assume -- this is in Paragraph 72 of

1 your report. You assume that the share of NAS
2 births due to prescription opioids is the same as
3 the share of OUD due to prescription opioids.

4 A. That's correct.

5 Q. And the share of OUD cases due to
6 prescription opioids is not something you
7 calculated. Right?

8 A. That's again -- I -- it's whatever table it
9 was previously. Those numbers come from --
10 directly from Professor Keyes' report.

11 Q. So you relied on Professor Keyes for the
12 share of OUD cases due to prescription opioids.

13 A. Yes, I did.

14 Q. So you are relying on Professor Keyes for
15 the share of NAS births attributable to opioids
16 that are attributable to prescription opioids in
17 particular. Correct?

18 MR. PENDELL: Objection to form.

19 A. Well, this is a question of epidemiology
20 that we're discussing right now. Disease counts,
21 which is -- which is the bread and butter of
22 epidemiology. It's not the bread and butter of an
23 economist, so I, you know, quite confidently could
24 rely on a first rate epidemiologist to give me the

1 information I needed to be able to do a disease
2 count, which is what we're discussing here.

3 So I relied on a very good one,
4 Professor Keyes, to do that.

5 Q. What is the basis for your assumption that
6 the share of NAS births due to prescription opioids
7 is the same as the share of OUD due to prescription
8 opioids?

9 A. Well, the basis of that assumption is that
10 babies born with NAS are born to mothers who are --
11 have a opioid use problem. And of those mothers --
12 if you wanted an estimate of what share of those
13 mothers with an opioid use problem are due to
14 prescription opioids, well, we just happen to have
15 a share estimate of that morbidity that we've
16 computed earlier.

17 So that's the basis. I think it's
18 mother's disease causes NAS; what share of mother's
19 disease is prescription opioids. We've estimated
20 that, so I think it's a pretty good assumption.

21 Q. You acknowledge that NAS can be caused by
22 in-utero exposure to opioids that were taken by the
23 birth mother as prescribed. Right?

24 MR. PENDELL: Objection.

1 A. I actually don't know the degree to which
2 -- you know, what level of risks are associated
3 with different things. I -- it's not something I
4 can help you with.

5 Q. Well, I'm not asking you to quantify
6 anything. I'm -- my question is: Do you
7 acknowledge that NAS can be caused by in-utero
8 exposure to opioids that were taken by the birth
9 mother as prescribed?

10 MR. PENDELL: Objection to form.
11 Outside the scope.

12 A. You know, I'm sorry, I don't really know.

13 Q. Okay. Would you look at page -- Paragraph
14 67 of your report? Are you there?

15 A. Yes.

16 Q. Okay. Second sentence of Paragraph 67 in
17 your report says, quote, "It" - meaning NAS - "can
18 occur due to any regular antenatal opioid use,
19 including whether opioids are taken as prescribed
20 or non-medically." Do you see that?

21 A. I see that.

22 Q. Okay. So NAS can result from a birth
23 mother's use of opioids pursuant to a prescription.

24 A. Well, it looks like that there's at least

1 some reference to support that statement.

2 Q. And so when you acknowledge that NAS can
3 occur due to any regular antenatal opioid use -
4 meaning use before birth - including when opioids
5 are taken as prescribed, you're acknowledging it
6 can result from opioid use taken pursuant to a
7 prescription written by a licensed physician.

8 Correct?

9 A. Yeah, it looks like that's possible.

10 MR. PENDELL: Objection.

11 Q. How many of the NAS cases included in your
12 quantification involved the birth mother taking
13 opioids as prescribed by her licensed physician?

14 MR. PENDELL: Objection.

15 A. Well, this is -- you're coming back to
16 questions of epidemiology where I'm kind of on the
17 edge on this. And again, this is something that
18 Professor Keyes would have considered and dealt
19 with, and I use her numbers.

20 Q. Okay. Does she address how many of the NAS
21 cases included in her count involved the birth
22 mother taking opioids as prescribed by her licensed
23 physician?

24 MR. PENDELL: Objection to form.

1 A. I'm not sure how she went this -- about
2 this. So I'm -- I can't tell you right now.

3 Q. Do physicians on occasion prescribe an
4 opioid to a pregnant woman to help her manage a
5 preexisting addiction during pregnancy?

6 MR. PENDELL: Objection to form.

7 A. I'm not really in a position to say.

8 Q. You don't know one way or the other?

9 A. I don't know one way or the other.

10 Q. How many of the NAS cases included in your
11 quantification involved babies who are born to a
12 birth mother who was taking a prescription opioid
13 as prescribed by her licensed physician to help her
14 manage a preexisting addiction during pregnancy?

15 MR. KO: To the form.

16 MR. PENDELL: Objection, yeah.

17 A. Well, that's very far into the weeds. That
18 also would have been something that Professor Keyes
19 took into account. The epidemiologist, not the
20 economist.

21 Q. Did Professor Keyes' count of NAS cases
22 account for babies who were born to a birth mother
23 who was taking a prescription opioid as prescribed
24 by her licensed physician to help her manage a

1 preexisting addiction during pregnancy?

2 MR. KO: Objection to form.

3 MR. PENDELL: Objection.

4 A. Well, again, I don't recall exactly what
5 Professor Keyes did, but her statement that the
6 majority of NAS cases are due to OUD is one that,
7 you know, allows for lots of other situations in
8 which a baby may be born with NAS.

9 So there's nothing inconsistent with
10 the statement that the majority are if you have
11 examples that sometimes it is not.

12 And I would have expected Professor
13 Keyes to, you know, be aware of the "sometimes they
14 are not" and I'm sure she was, so there's no reason
15 that what you're -- this -- sort of these
16 questions, are ones that would cause me to doubt
17 the reliability of the assumption that -- my
18 conservative assumption that 50 percent only of the
19 NAS cases are due to opioid use disorder.

20 Q. Are you drawing a separation between
21 mothers who have opioid use disorder and mothers
22 who are taking a prescribed opioid to help manage a
23 preexisting condition?

24 A. Well, that's again a question of

1 epidemiology. And if the person -- if the mother
2 has opioid use disorder, then -- and you have a NAS
3 baby, that may well have been due to prescription
4 opioids.

5 But the distinction between who is
6 taking and who has OUD is one that is also squarely
7 within Professor Keyes' expertise, and I know she
8 addressed that in her report.

9 Q. You purport to value the economic harm from
10 child maltreatment by multiplying the number of
11 victims where prescription opioids were involved by
12 the costs associated with this maltreatment.
13 Correct?

14 A. That's broadly correct, but give me a hint
15 about where this paragraph is.

16 Q. Sure. Paragraph 100.

17 A. Well, okay. It's -- yes, I'm there.

18 Q. Okay. Do you see that sentence at the
19 beginning of Paragraph 100?

20 A. Yes.

21 Q. Okay. What is the definition of
22 "maltreatment" when you're attempting to value the
23 economic harm from child maltreatment?

24 A. This is a field of child welfare, and

1 "maltreatment" can be neglect or abuse. And I
2 think we know what those mean.

3 Q. Did you pull any data from any Cabell
4 County source about the number of children who are
5 maltreated in that county?

6 A. Well, my methodology is here. And I know I
7 had to use some West Virginia numbers for some
8 percentages, and then the data I used for Cabell
9 had to do with the number of kids in Cabell.

10 Q. Right. But my question is specific. Did
11 you pull any data from any Cabell County source
12 about the number of children who are maltreated in
13 that county?

14 MR. PENDELL: Objection to form.

15 A. Well, the number is Cabell data; the number
16 of kids is Cabell data. The share of kids who are
17 maltreated is a West Virginia number.

18 Q. Okay. Did you look for any data specific
19 to children in Cabell County who are maltreated?

20 MR. PENDELL: Objection to form.

21 A. I think I probably would have been
22 interested in that. I don't remember -- I don't
23 remember the details. But I know -- remember
24 asking that question and determining that this was

1 the best source of an estimate.

2 Q. So what -- when you -- when you looked for
3 data specific to children in Cabell County who were
4 maltreated, what did you find?

5 A. See, I don't remember the details of what
6 -- the limitations or availability of local data
7 would be with respect to maltreatment, so I'm
8 sorry, I don't remember.

9 Q. So the analysis you did relied on data you
10 pulled from the Department of Health and Human
11 Services Administration for Children and Families?

12 A. Well, that's some of the data, yes.

13 Q. Okay. And where does the Administration
14 for Children and Families get its data?

15 MR. PENDELL: Objection to form.

16 A. I believe from child welfare agencies.

17 Q. In the various states?

18 A. In the various states.

19 Q. Did you --

20 A. Sorry. Excuse me. There could be other --
21 there could be other sources. I'm not 100 percent
22 familiar with it.

23 Q. Okay. Do you know where else, if anywhere,
24 the Administration for Children and Families gets

1 its data other than from child protective agencies
2 in the states?

3 MR. PENDELL: Objection to form.

4 A. I have to go -- I'd have to go back and
5 look. I don't recall right now.

6 Q. Okay. Did you seek any data from any child
7 protective agency in West Virginia?

8 A. I don't think I made any direct requests
9 that I remember.

10 Q. Okay. So you went to the Department of
11 Health and Human Services Administration for
12 Children and Families and you requested data for
13 West Virginia?

14 A. Yes.

15 Q. Okay. And you say that you could -- you
16 could not get data from the Administration for
17 Children and Families for certain years. Correct?

18 A. That's also correct, yes.

19 Q. So the Administration for Children and
20 Families was not able to provide West Virginia data
21 for 2006, 2007, 2008, 2009, 2013 and 2015.
22 Correct?

23 A. Well, I'm -- if you don't mind pointing me
24 to where you're seeing that.

1 Q. Sure. Why don't you look at your Footnote
2 183.

3 A. Yes, okay. Your statement --

4 Q. Okay. And so for those years - 2006, 2007,
5 2008, 2009, 2013 and 2015 - you had to estimate
6 counts for those years, correct?

7 A. That's correct, yes.

8 Q. Okay. So having gone to the Administration
9 for Children and Families and gotten its data for
10 West Virginia for certain years, but not all of
11 them, you then estimated counts for the missing
12 years.

13 A. That's correct.

14 That's my phone. Sorry. I'm ignoring
15 it.

16 Q. It is? Okay.

17 A. Yes.

18 Q. I was checking my phone just in case.

19 A. Yes, I could tell. Everyone was probably,
20 "Oh my gawd, I got a call."

21 Q. And then you -- based on the data you have
22 and extrapolating across the years for which you
23 did not have data, you estimated the number of
24 first-time victims of child maltreatment with a

1 drug abuse risk factor. Correct?

2 A. That's correct.

3 Q. Did you assign the drug of use risk factor
4 to those first-time victims?

5 A. That's in the data.

6 Q. That's in the data you got from the
7 Administration for Children and Families?

8 A. Yes.

9 Q. Does the Administration for Children and
10 Families assign the drug abuse risk factor?

11 MR. PENDELL: Objection to form.

12 A. Well, it would have been from whatever data
13 source would have done that assignment. I don't
14 think they did it at that level.

15 Q. Okay. So you didn't assign it, and you
16 don't think the Administration for Children and
17 Families assigned it? Do you think it's in the
18 data that was reported to the administration for
19 child and families?

20 A. That would be my assumption, yeah.

21 Q. Okay. And so for the West Virginia data,
22 you believed the drug abuse risk factor would have
23 been assigned by a child protective agency for West
24 Virginia?

1 MR. PENDELL: Objection to form.

2 A. Whatever the reporting agency is. I'm --
3 that's really all I can say.

4 Q. What child protective agency or agencies in
5 West Virginia provided the data that the
6 Administration for Children and Families has for
7 West Virginia?

8 MR. PENDELL: Objection to form.

9 A. I'd have to go back and look. I can't tell
10 you off the top of my head.

11 Q. Okay. And what does a drug abuse risk
12 factor mean in the data for West Virginia?

13 A. It means a caregiver - who is, in this
14 context, mostly parents, but not always parents -
15 uses drugs.

16 Q. Who -- who assigns the drug abuse risk
17 factor to a particular case?

18 MR. PENDELL: Objection to form.

19 A. Now, here again, it's a little bit more
20 detailed than I can answer right now. Caseworker,
21 but I'm not sure.

22 Q. Okay. And you believe it's a caseworker?

23 MR. PENDELL: Objection.

24 A. I said it could be a caseworker. I'm not

1 sure who does the assignment of the data.

2 Q. If not a caseworker, who would assign the
3 drug abuse risk factor to a particular case?

4 MR. PENDELL: Objection.

5 A. Well, it could be someone who gets a report
6 from a caseworker and then makes a determination.

7 Q. And what are the criteria used for deciding
8 whether to assign a drug abuse risk factor to a
9 particular case?

10 MR. PENDELL: Objection to form.

11 A. That's, again, more detailed than I can
12 answer off the top of my head.

13 Q. Does it require a finding that the
14 maltreatment was caused by drug abuse by a
15 caregiver?

16 MR. PENDELL: Objection to form.

17 A. Again, I'm not sure. It's too much detail
18 for me to know sitting here.

19 Q. Does it require a finding that there was
20 drug abuse by someone in the family?

21 MR. PENDELL: Objection to form.

22 A. This is too much detail. I'm sorry. I
23 can't answer that question now.

24 Q. Can a drug abuse risk factor be assigned to

1 a case based on assess -- an assessment that there
2 was a risk of drug abuse by the caregiver or the
3 family?

4 MR. PENDELL: Objection to form.

5 A. I'm not sure I totally understand the
6 question, but I do -- I do think it's probably too
7 much detail for me to be able to answer.

8 Q. Okay. I'm trying to understand - based on
9 your understanding of this data - how is a drug
10 abuse risk factor assigned to a particular case?
11 Is it that someone has concluded that in fact there
12 was drug abuse? Or is it that the child's home or
13 the child's caregivers are at risk of abusing
14 drugs?

15 MR. PENDELL: Object to the form.

16 A. My understanding, it's the former, not the
17 latter.

18 Q. What is your understanding based on?

19 A. It's reading the material that fed into
20 this analysis.

21 Q. What material?

22 A. The report that we've been referring to.

23 Q. The report from the Administration for
24 Children and Families?

1 A. Yes.

2 Q. Okay. What -- where is that report cited
3 in your report?

4 A. Probably here, but certainly -- it's right
5 in 183 -- Footnote 183 but -- and Footnote 176 and
6 elsewhere.

7 Q. You then estimated the percentage of
8 first-time victims with a drug risk factor who live
9 in Cabell County. Correct?

10 A. Correct.

11 Q. And you did that by comparing the total
12 number of children in Cabell County to the total
13 number of children in West Virginia?

14 A. Give me a paragraph, please, I'll -- then
15 I'll confirm.

16 Q. It's Paragraph 103 again, if you need a
17 reference.

18 A. Well, it just helps me to take a look.

19 Yes, that's what I did.

20 Q. Okay. So you -- you calculated a ratio of
21 the total number of children in Cabell County to
22 the total number of children in West Virginia and
23 then you applied that ratio to the total number of
24 first-time victims with a drug abuse risk factor to

1 identify the percentage of those victims who live
2 in Cabell County?

3 A. That's basically correct. And if I could
4 just editorialize a little bit on this method, it's
5 conservative.

6 Cabell has it worse than the state, so
7 I felt that (Zoom audio glitch) figures derived in
8 this way are probably a lower bound than what the
9 real numbers are.

10 Q. You said Cabell county has it worse --
11 worse than the rest of the state --

12 A. In terms of the impact of the opioid
13 crisis.

14 Q. Okay. Including with respect to child
15 maltreatment.

16 A. Including with the things that the opioid
17 crisis causes, including child maltreatment.

18 Q. So you -- you assume there's no variation
19 in the rate of child maltreatment across West
20 Virginia?

21 MR. PENDELL: Objection to form.

22 A. No, I didn't assume that. I assumed that
23 the West Virginia numbers were a undercount of what
24 I was going to see in Cabell. And so using the

1 West Virginia numbers, give a informative estimate,
2 and it's an informative -- I would call a lower
3 bound of what the numbers are.

4 So when I'm interested in computing a
5 net cost number or I'm counting children who are
6 maltreated and then assessing the cost to those
7 children, I come up with a number that is -- I
8 mean, the quote/unquote real number would be at
9 least as big as that.

10 Q. So you now -- at this point in your
11 methodology, you've identified the number of
12 first-time victims with a drug abuse risk factor
13 who live in Cabell County. Right?

14 And then the next step was to determine
15 the percentage of those victims where the drug
16 involved opioids?

17 MR. PENDELL: Object to the form.

18 A. That's correct.

19 Q. And you did that by -- by applying the
20 percentage of drug seizures that involved opioids?

21 A. Yes, that's also correct.

22 Q. What is your basis for using that
23 percentage as a -- as a proxy for the drug abuse
24 risk factor involving opioids?

1 MR. PENDELL: Objection.

2 A. Well, it's a -- I think it's a reasonable
3 estimate of the share of overall drug. So I have
4 from the West Virginia data drug abuse risk
5 factors, and I don't want to be, you know, overly
6 -- I don't want to count too much and attribute all
7 of that to opioids. Even though in Cabell County,
8 I think it could be said with confidence that
9 opioids, in relation to drug abuse, are much higher
10 than it would be on the national level.

11 So that's sort of underlying thing
12 that's feeding into my thinking here. And so if I
13 take a national number that is the ratio of opioid
14 to other drugs - which I can get through this
15 seizure reporting information - that, again, is a
16 -- an estimate I can be confident is a lower bound
17 on what that ratio would be in Cabell County.

18 So that's -- that's how I can
19 confidently use a national number.

20 Q. And then you attempt to estimate the
21 percentage of first-time victims with a drug abuse
22 factor who live in Cabell County where the drug
23 involved opioids that are attributable to
24 prescription opioids.

1 A. Yeah, I had to go through --

2 Q. Is that correct?

3 A. I had to do that too.

4 Q. Okay. And so you take the number of
5 first-time victims with a drug abuse risk factor
6 who live in Cabell County where you believe the
7 drug involved opioids, and you multiply it by the
8 opioid morbidity attributable to prescription
9 opioids, again using the numbers that you got from
10 Professor Keyes.

11 A. That's what I did, yes.

12 Q. Okay. And as a result of this, your
13 calculations purport to show that 97.5 percent of
14 all child maltreatment cases in 2006 are
15 attributable to prescription opioids.

16 A. I'm sorry, where are you now?

17 Q. Well --

18 A. That doesn't sound quite right, but let me
19 -- where are you finding those numbers?

20 Q. Well, let's go back to --

21 A. If you say it again, maybe I can figure
22 out --

23 Q. Well, I'm trying to find table --

24 A. I see that the numbers in Table 9, you have

1 to look back at Attachment C to figure out where
2 they came from.

3 Take a look at Table 9.

4 Q. Yeah.

5 A. 3, 2, 2, 4. This methodology doesn't lead
6 to - on the face - what seemed to me to be too
7 high. If anything, I see 2011, four kids in Cabell
8 County maltreated because of prescription opioids?

9 I know that's kind of a impression, but
10 that's -- if you're trying to argue that that's an
11 overestimate, I don't know. I just don't know
12 where you're coming from.

13 Q. I'm not arguing anything. I'm asking you
14 questions.

15 A. I know. But if you're trying to make that
16 point and you see four in 2011, I don't know. I
17 just don't know.

18 Q. So the number -- the figures in your Table
19 9, the first row, you're saying that's the number
20 of children who are maltreated by someone who was,
21 what, using prescription opioids?

22 A. No, this is -- no. It's -- it's analogous
23 to the questions I tried to address earlier. It's
24 the maltreatment due to prescription opioids with

1 the kind of model or idea that prescription opioids
2 can cause disease, and it's people who are ill with
3 opioid use disorder - either directly or indirectly
4 due to prescriptions - who are those that provide
5 -- who that create a risk to a child.

6 And so it's prescriptions, to disease,
7 to risk of maltreatment. And you know, the various
8 factoring down that we've been discussing -- you
9 factor down because not all drugs are opioids; you
10 factor down because not all opioids are
11 prescription opioids, then --

12 But with that factoring down of the
13 number of children who are maltreated, you come up
14 with these numbers. That's -- that's the basic
15 idea here.

16 Q. You submitted an errata sheet on August
17 24th, 2020, correct?

18 A. Yes, I did.

19 Q. Do you have a copy of that errata sheet in
20 front of you?

21 A. I can put one in front of me.

22 Q. Please do so.

23 A. Okay.

24 Q. Do you have it in front of you?

1 A. I do, yes.

2 Q. Okay. And the errata sheet appears to have
3 two sections. One section is titled "Harm
4 Valuation Changes." Right?

5 A. Yes.

6 Q. And the other is titled "Typographical and
7 Citation Changes." Right?

8 A. That's correct.

9 Q. Okay. Is it accurate to say that all of
10 the harm valuation changes listed in this errata
11 sheet are the result of getting new numbers from
12 Professor Keyes?

13 A. Well, I listed here the reason. And in
14 every one of the cases in that Harm Valuation
15 Changes, it's due to an input change from Doctor
16 Keyes, Professor Keyes.

17 Q. When did you get these input changes from
18 Professor Keyes?

19 A. I think it was about a week later. A week
20 after the submission of her original report.

21 Q. Okay. So roughly August 10th?

22 A. Yeah. I'm not sure exactly, but not long
23 after.

24 Q. And what did you get on August 10th? Did

1 you get a revised report that had new numbers?

2 A. No. I got a revised set of in -- what I
3 would call the input numbers. In the form -- it
4 comes in an Excel spreadsheet.

5 Q. Okay. And who supplied that Excel
6 spreadsheet with the new numbers that were input
7 changes from Professor Keyes?

8 A. Someone that works with Professor Keyes.

9 Q. Okay. And prior to receiving that
10 spreadsheet, had you received a heads-up that
11 Professor Keyes was revising the numbers in her
12 report?

13 A. I don't think so. But -- no, I didn't
14 receive a heads-up.

15 Q. Prior to receiving the spreadsheet, were
16 you aware that the numbers in Professor Keyes'
17 original report were inaccurate?

18 A. No, I was not.

19 Q. When you got the spreadsheet, what did you
20 do with it?

21 A. What my staff did with it was to substitute
22 the previous input numbers that we'd been using
23 from Professor Keyes that, you know, flow through
24 the report. And I think you can see with all the

1 changes that are necessary from the change in
2 Professor Keyes' numbers that, you know, the inputs
3 change, and then there's a series of Excel files
4 that produce tables and figures that themselves
5 changed.

6 So thankfully, to the magic of Excel,
7 you know, one is able to do something like that
8 relatively quickly.

9 Q. So did -- did someone on your team input
10 the updated corrected figures from Professor Keyes
11 into your -- your report?

12 A. That -- I mean, that's -- it sounds a
13 little bit more by hand than it actually was. But
14 yes. The inputs came from Professor Keyes, and
15 then they were fed into the Excel spreadsheets that
16 produced the tables in my report.

17 Q. When you got the spreadsheet from Professor
18 Keyes with the updated corrected numbers, did you
19 follow up with Professor Keyes to understand what
20 led to those changes or corrections?

21 A. I asked my staff about this. I didn't talk
22 to Professor Keyes directly.

23 Q. Who on your staff did you ask?

24 A. Adrian Garcia.

1 Q. And what did Adrian tell you?

2 A. Well, there was two kind of groups of -- if
3 I can call them corrections, to Professor Keyes'
4 report, one having to do with morbidity, and
5 there -- there was a year - a single year, 2010 -
6 where something was .053 and it should have been
7 .043. I can't remember exactly what the entry
8 refers to.

9 But that, I understood to have been a
10 typo. That someone on her end had entered in the
11 wrong number.

12 Then the other source of corrections
13 had to do with mortality, and it had to do with a
14 subset of the years of mortality from 2013 to 2018.
15 And my understanding of what happened there is that
16 on Professor Keyes' end, there was an inadvertent
17 inclusion of a table that wasn't -- or a figure
18 that wasn't the final figure, so it --

19 That -- it's kind of a mistake, but I
20 don't know beyond -- that's my understanding of
21 what -- that's what Adrian explained to me.

22 Q. Okay. So what you've offered is what you
23 heard from Adrian, not what you heard from
24 Professor Keyes.

1 A. That's correct.

2 Q. And there were two groups of corrections:
3 The first one involved morbidity and the second one
4 involved mortality?

5 A. That's correct.

6 Q. And for the second category, mortality, you
7 said there was an inadvertent inclusion of a
8 nonfinal figure in Professor Keyes' calculations
9 for Years 2013 through 2018?

10 A. Some -- yeah, something like that.

11 Q. And who -- who identified the error?

12 MR. PENDELL: Objection to form.

13 A. I'm not sure.

14 Q. Who on Professor Keyes' team corrected it?

15 MR. PENDELL: Objection to form.

16 A. I'm also not sure about that.

17 Q. Okay. And then after Adrian Garcia told
18 you of these errors, did you give Adrian
19 instructions on how to revise and update and
20 correct your report?

21 A. Yes.

22 Q. And how long did it take for Adrian to
23 update your report based on the corrected figures
24 from Professor Keyes?

1 A. An amazingly short period of time. I don't
2 know in terms of days or hours, but not long. You
3 know, once the inputs -- the input Excel files are
4 set up, the actual -- you know, producing the
5 actual Excel results happens, you know, very
6 quickly.

7 And then the report has to go in and be
8 modified, numbers changed and narrative changes.
9 That takes a little bit longer.

10 But I was in -- I guess I'm not
11 shocked, but I was impressed how quickly the whole
12 thing could get turned around.

13 Q. So having received the spreadsheet from
14 Professor Keyes on August 10th or so, when was your
15 revised report finalized?

16 A. Oh, gosh. When it was submitted. I don't
17 remember exactly the date.

18 Q. Okay.

19 MR. PENDELL: Andy, I didn't want to
20 interrupt this line of questioning, but at some
21 point, if we could think about lunch. We've been
22 going for a while, and I don't know if Professor
23 McGuire is hungry, but I definitely am.

24 MR. KEYES: Sure, sure, okay.

1 Q. The second set of changes in the errata
2 sheet are corrections of citations and corrections
3 of typographical errors?

4 A. Yes.

5 Q. And who identified those errors as issues
6 that needed to be corrected?

7 A. This was my staff at Greylock McKinnon.

8 Q. I'm sorry, your staff and what?

9 A. Some member of the staff at Greylock
10 McKinnon. I don't know what individual actually
11 did it.

12 Q. Okay. And since submitting this errata
13 sheet on August 24th, have you identified any other
14 errors?

15 A. No, I haven't.

16 Q. Okay.

17 MR. KEYES: Let's go off the record.

18 VIDEO OPERATOR: Going off the record.

19 The time is 12:04 p.m.

20 (A recess was taken for lunch after
21 which the proceedings continued as
22 follows:)

23 VIDEO OPERATOR: This begins Media
24 Unit 4 in the deposition of Tom McGuire. We're

1 back on the record. The time is 12:56 p.m.

2 BY MR. KEYES:

3 Q. Professor McGuire, you have a section on
4 the economic harms that result from crime that are
5 attributable to or due to prescription opioids.
6 Can you walk us through how you estimated the
7 number of crimes in the Cabell/Huntington community
8 that are attributable to the sales and distribution
9 of prescription opioids?

10 A. Okay. I'm going to open my report to that
11 section, and I'll essentially step through the
12 analysis there. So let me just get there first.

13 Q. Sure.

14 A. Okay. So it begins at Paragraph 78. And
15 I'll give you a high level overview, Counsel, and
16 then whatever you want to follow up on, then we can
17 talk about that.

18 So at a high level, the idea is similar
19 to the approaches that have been taken to the other
20 areas of harms and costs, and it's in two parts.
21 The first part is to do the count part, which is to
22 - in this case - estimate the number of crimes in
23 the Cabell/Huntington community that are
24 attributable to prescription opioids, and then to

1 value them in terms of dollars to get a net cost.

2 And I understand you're asking about
3 the first part.

4 Q. Correct.

5 A. So -- I can keep talking if you want.

6 Q. No. So my question is about the first
7 part.

8 A. Okay.

9 Q. How did you estimate the number?

10 A. That's what I thought. And with regard to
11 the number, the initial step is to obtain a count
12 of the total crimes in the Cabell/Huntington
13 community that -- from all the law enforcement
14 agencies over this time period.

15 And that involves a kind of national
16 incidence-based reporting system which is -- I
17 think it's maintained by the FBI.

18 -- that does that -- that collects that
19 information. But the reporting to that is -- my
20 understanding is voluntary. So not all the LEAs -
21 which are the law enforcement agencies - who would
22 have information about crimes in this community
23 would necessarily report to the FBI each year.

24 So I started with the national data

1 that's reported by the local agencies, and then I
2 noticed which agencies and which years were not
3 reported, and then I went to those agencies
4 directly - or my staff went to those agencies
5 directly - and requested the information.

6 And in a number of cases, we got that
7 information. So that was added into the aggregate.

8 And as you know from my report, the
9 reporting of crimes is in various categories. Even
10 after this follow-up, not all law enforcement
11 agencies were able to provide us with the data, so
12 there's -- we're missing some, which makes what
13 I've done undercount.

14 But what I have is the ones that
15 reported to the NIR -- NIBRS and then the ones that
16 reported to us directly.

17 So that gives kind of a total: Here
18 are all the crimes that were in the Cabell
19 community during this time period.

20 And then the question I was interested
21 in is: What share of those crimes can be
22 attributable to prescription drugs? And here, I
23 treated the try -- crimes -- sorry -- in two
24 different categories. One is drug-related crimes,

1 and the other is what you would call - I don't know
2 - nondrug-related crimes.

3 Or sorry, drug crimes and other crimes.

4 Drug crimes are all due to drugs. Then
5 the -- I had to step down from all drugs to
6 opioids, then from opioids to attributable to
7 prescriptions. So that was done in two steps. And
8 we can talk about those if you'd like.

9 And then in the case of the nondrug
10 crimes, some of those will be due to drugs and some
11 of them to prescription opioids ultimately, and
12 there was three steps.

13 I had to go from the count -- crime
14 count itself and derive the share of those that was
15 attributable to drugs, and then among those
16 attributable to drugs, what share of those were
17 attributable to opioids, and then among those that
18 were opioids, what share were attributable to
19 prescription opioids.

20 So it's a -- I guess a two-step process
21 with respect to the drug crimes and a three-step
22 process with respect to the nondrug crimes.

23 Q. Okay. You said that you started with the
24 data from the National Incident-Based Reporting

1 System or NIBRS?

2 A. Yes. That was one of the sources.

3 Q. And you started with the data from NIBRS
4 for Cabell County, but there were some gaps in that
5 information, and so your staff requested data
6 directly from certain law enforcement agencies?

7 A. That's correct, yes.

8 Q. Who on your staff made that request?

9 A. I believe it was Adrian Garcia.

10 Q. And what specifically did Adrian Garcia
11 request from those law enforcement agencies?

12 A. He requested the information that would
13 have been reported to the NIBRS.

14 Q. Okay. And did the data that he received
15 from these law enforcement agencies identify which
16 of the crimes were drug-related?

17 A. Well, some. The -- and some are drug
18 crimes. So to that degree that -- yes, this is the
19 same classification that the NIBRS uses.

20 Q. But for the crimes that are reported
21 outside the category of drug crimes, did the data
22 show which of those crimes were drug-related?

23 A. No. The data at that level did not show
24 that, which was why the -- with respect to the

1 crimes in that category, there were three steps
2 instead of two and the methodology I described a
3 few minutes ago.

4 Q. Okay. And then for the data that you
5 received from NIBRS for Cabell County and the data
6 you received directly from the law enforcement
7 agencies in Cabell County, whatever drug crimes
8 were reported, you said they're 100 percent due to
9 drugs.

10 A. That's right.

11 Q. And for all the drug -- all of the crimes
12 in the other categories, you then needed to
13 estimate the percentage of crimes in each category
14 that could be attributable to any kind of drugs.

15 Right?

16 A. That's correct. That was the first step in
17 that last category, yes.

18 Q. And to do that, you took the percentage of
19 all crimes in each category that are attributable
20 to drugs as provided by the U.S. Department of
21 Justice National Drug Intelligence Center?

22 A. I believe that's correct. If you want me
23 to confirm that precisely, I can do that if you
24 remind me where this is happening in the report.

1 Q. Well, you say that in Paragraph 23 of
2 Section 4, Appendix C.

3 A. Okay.

4 Q. Tell me when you're there.

5 A. I'm there.

6 Q. Okay. Are you in Appendix C --

7 A. I'm sorry.

8 Q. -- Section 4, Paragraph 23?

9 A. Yeah, I'm looking at it now.

10 Q. Okay. And you say, "I adjust the number of
11 crimes identified in the NIBRS data and individual"
12 law enforcement agencies "to estimate crimes
13 attributable to prescription opioids in three
14 steps. First, the percent of all crimes in each
15 category that can be attributable to drugs (opioids
16 and non-opioids) is taken from the" U.S. Department
17 of Justice National Drug Intelligence Center."

18 See that?

19 A. Yeah, I'm following along.

20 Q. Okay. So is that statistic a national
21 statistic of what percentage of crimes in each
22 category are attributable to drugs?

23 A. I think it is a national statistic, yes.

24 Q. Okay. Did you undertake to find any

1 similar statistic that was specific to West
2 Virginia?

3 A. I don't remember. I don't think so. This,
4 again, would have been a lower bound, because West
5 Virginia and Cabell in particular are harder hit
6 than the rest of the country.

7 Q. And did you undertake to review any Cabell
8 County-specific data to determine the percentage of
9 crimes in each category that are attributable to
10 drugs?

11 A. Yeah, I think the same answer. The -- I
12 wasn't aware of any such data, and the national
13 data, I'm very comfortable with as being a lower
14 bound on what's going on in Cabell.

15 Q. And then having estimated the share of
16 crimes that are drug-related, you then wanted to
17 estimate the share that are opioid-related, right?

18 A. That's also correct, yes.

19 Q. And you say here in Paragraph 24 that you
20 followed the methodology in the Florence study.

21 A. Yes.

22 Q. Okay. And what was that methodology?

23 A. Well, I think the next sentence explains
24 that. This is drug seizures. The methodology was

1 from Florence. The data come from LEAs in Cabell.

2 Q. All right. So what was the methodology?

3 A. Well, the methodology is to look at drug
4 seizures and attribute to opioids the share that
5 they comprise of drug seizures.

6 Q. Okay. And so where did you look at the
7 Cabell-specific data to determine what percentage
8 of the drug seizures were seizures of opioids?

9 A. Well, it has -- this -- the next sentence
10 describes that, in the National Forensic Laboratory
11 Information Service.

12 Q. Okay. And what does the National Forensic
13 Laboratory Information Service provide regarding
14 drug seizures in Cabell County?

15 A. Well, I would have to go back and check
16 what level of aggregation this is, geographic. I'm
17 not sure right now.

18 Q. Okay. Was it specific to Cabell County or
19 was it state-wide for West Virginia?

20 A. I -- I'm doubtful that it was Cabell. So
21 it's more likely to have been state.

22 Q. Okay. Was it state-wide data or was it
23 national data?

24 A. You didn't tell me I was going to have

1 three choices. I -- I'm actually not sure. I'd
2 have to go back and look.

3 Q. Okay. But you did then estimate the
4 percentage of drug-related crimes that were
5 opioid-related, and your third step was then to
6 determine of the opioid-related crimes, what
7 percentage are attributable to prescription opioid
8 sales and distribution?

9 A. That's -- that's the -- that's right.
10 That's the third step.

11 Q. Okay. And that third step then uses the
12 rate of OUD that's attributable to prescription
13 sales and distribution as calculated and reported
14 by Professor Keyes. Correct?

15 A. That's also correct, yes.

16 Q. Okay. So you undertook to identify the
17 number of crimes in each category. You undertook
18 then to determine a percentage of the crimes in
19 each category that are drug-related.

20 You used some data from the National
21 Forensic Laboratory Information Service to
22 determine what percentage of the drug-related
23 crimes were opioid-related; and then of the
24 opioid-related crimes, you determined what

1 percentage were due to prescription opioid sales
2 and distribution by using the percentages that
3 Professor Keyes had derived.

4 Correct?

5 MR. KO: Object to the form.

6 A. I employed a three-step process that you've
7 summarized there pretty well.

8 Q. In -- in the section on the impact of the
9 sale and distribution of prescription opioids on
10 property values, you offer the opinion that you had
11 already calculated that prescription opioids were
12 responsible for 7.2 percent of total crimes in the
13 Cabell/Huntington community over the period of 2006
14 to 2018.

15 Did I get that right?

16 MR. PENDELL: Where's that in the
17 report?

18 MR. KEYES: Paragraph 97.

19 MR. PENDELL: Thank you.

20 A. That's the right number. I remember that
21 number.

22 Q. Okay. Tell me when you're at Paragraph 77
23 -- 97.

24 A. I'm there.

1 Q. And do you see in Paragraph 97, you say,
2 "The first causal link, between prescriptions and
3 crime, has already been covered in Section III.D.
4 Overall, I calculate that prescription opioids were
5 responsible for 7.2% of total crimes in the
6 Cabell/Huntington Community over the period of 2006
7 to 2018."

8 A. Okay.

9 Q. Did I read that correctly?

10 A. I'm -- yes, you did.

11 Q. Okay. And then you make the assumption in
12 your analysis that 7.2 percent of total crimes
13 going forward will be prescription opioid-related.
14 Correct?

15 A. That's correct, yes.

16 Q. What is the basis for that assumption, that
17 7.2 percent of total crimes going forward will be
18 prescription opioid-related?

19 A. Well, it's the -- I had the very good basis
20 of what the last 12 years have done.

21 Q. Okay. And --

22 A. So sorry to --

23 Q. -- you're saying that the next 12 years
24 will be the same as the last 12 years?

1 A. Well, I -- the -- it's -- I think it's a
2 very reasonable assumption that the percent that's
3 been characterized in this community over the past
4 12 years is a reasonable estimate of what it will
5 be going forward.

6 Q. And why did you choose that 12-year period?

7 A. The 2006 to 2018?

8 Q. Yes. For this -- for this category of
9 alleged economic harm or cost.

10 A. For the -- with respect to the property
11 values, you're asking?

12 Q. Yes.

13 A. Well, that was using all the data I had.

14 Q. Okay. You then estimate that for every 1
15 percent increase in total crimes, there's a quarter
16 of a percentage point decrease in property values?
17 Did I get that right?

18 A. You did get that right. This was not an
19 estimate I conducted; it was one that came from a
20 paper in the literature.

21 Q. What paper was that?

22 A. I don't know if it's here or in the
23 appendix. Probably in the appendix.

24 Q. Do you recall the study offhand, without

1 looking at your report?

2 A. I remember what the study did. It looked
3 at -- the county-level study. And it -- multiple
4 years, and looked at crime rates and how they
5 correlated with property values.

6 But I --

7 Q. You --

8 A. -- my report to give you more than that.

9 Q. It's referenced in Appendix C, Paragraph
10 37.

11 A. Okay.

12 Q. Are you there?

13 A. Yeah, I'm there.

14 Q. Okay. Do you see in Paragraph 37, you
15 refer to the Pope and Pope study?

16 A. Yes.

17 Q. Do you rely on anything besides the Pope
18 and Pope study for your decision to estimate that
19 for every 1 percent increase in total crimes, there
20 is a quarter of a percentage point decrease in
21 property values?

22 A. Well, yes, I had a brief discussion here of
23 other papers that fall in that literature that
24 establish a causal connection between crime and

1 property values.

2 Q. Okay.

3 A. And --

4 Q. Let's --

5 A. Just one more sentence. The Pope and Pope
6 result was one that I could use in my analysis.

7 Q. Okay. You reference other studies. But do
8 you reference any other studies that report or
9 quantify the relationship between a percentage
10 decline in crime and increased home values or a
11 percentage increase in crime and a decrease in home
12 value?

13 MR. PENDELL: Objection to form.

14 A. I'm just taking a quick look.

15 Q. Please do.

16 A. I mean, the other studies that I referenced
17 here don't build a percentage, as I recall them. I
18 mean, I --

19 Q. What other studies are you referring to
20 when you say you reference other studies?

21 A. Well, the ones in Paragraph 36. The effect
22 of crime on property values. There's support for
23 that in the economic literature.

24 Q. Okay. And do any of those studies that are

1 referenced in Paragraph 36 quantify the link
2 between an increase in crime and a decrease in home
3 value or a decrease in crime and an increase in
4 home value?

5 A. Well, they do, but they're specific to
6 particular kinds of crime, and the -- you know, my
7 task here was to not look at sex offender crimes,
8 but it was to look at in general if there was a
9 decrease in crime.

10 Q. And the Pope and Pope study looked at
11 property values in certain zip codes in the 1990s,
12 correct?

13 A. That's correct.

14 Q. Did you look at any study since the Pope
15 and Pope study that looked at the relationship
16 between crime rates and property values?

17 A. No. If I had, I would have put it down
18 here.

19 Q. Okay. And your quantification here is
20 reflecting the depressed property values in the
21 Cabell County area that are the result of the
22 expectation that crime will continue in the future
23 at the same rate it's continued in the past.

24 Correct?

1 A. No, I wouldn't say that.

2 Q. What's wrong with that statement?

3 A. What this -- it -- the statement is too
4 strong in terms of what the assumption is. The
5 assumption is that this is a percentage. So
6 whatever expectation there is about crime - which
7 could be that it's trending down, for example -
8 there would be the -- you know, withdrawing the
9 causal effect to prescription opioids would reduce
10 that by 7.2 percent.

11 Is that clear?

12 Q. Say that again? Please.

13 A. The assumption is that the reduction in
14 prescription-related crimes, if those were
15 withdrawn, would reduce the level of crime by 7.2
16 percent.

17 It doesn't assume that the level of
18 crime is constant from the past.

19 Q. It assumes that the share of total crimes
20 attributable to prescription opioids will be 7.2
21 percent in the future as it was between 2006 to
22 2018.

23 A. That's the assumption that's necessary for
24 me to make that calculation, yes.

1 Q. Right. And you assume that because the
2 share of total crimes attributable to prescription
3 opioids will continue to be 7.2 percent, it will
4 continue to depress the market value of homes by a
5 quarter of a percentage point for each of those 7.2
6 percentage points.

7 A. Yeah, that's basically correct, yes.

8 Q. Okay. And the reason the market values are
9 depressed is because of the expectation that crime
10 will continue at the same rate in the future.

11 A. See, that's the part that's not correct.

12 Q. Why not?

13 A. Well, I explained that. The formula that I
14 use to predict the effect on property values is
15 done in percents, so it's the percent reduction in
16 crime is what needs to be -- the percent reduction
17 due to prescription opioids, that I assume is the
18 same going forward.

19 But once I know that percent, then I'm
20 able to use the information from Pope and Pope to
21 yield a percent decrease in property values that's
22 caused by the prescription opioid property-related
23 crime.

24 So I don't need to know people's

1 overall level of crime expectations; it's just this
2 percent is all I need to be able to go forward.

3 You can just see the math there.
4 There's no overall level of expectation. It's just
5 percent times percent times assessed value, bam.

6 Q. Do you do anything to adjust for the fact
7 that the owners of the properties that are
8 experiencing the depressed market value benefited
9 from those lower property values when they
10 purchased the property?

11 MR. PENDELL: Objection.

12 A. Well, no, this, I think, would not be the
13 kind of thing that would be a correct calculation
14 here. If something falls in value, it falls in
15 value. If you're the buyer of that, maybe you're a
16 little better off; but if you're the seller, you're
17 way worse off.

18 Q. Okay. So is the answer that you did not do
19 anything to adjust for the fact that the -- that
20 some purchasers of the properties with what you say
21 is a depressed market value benefited from that
22 depressed market value when they bought the
23 properties in the first place?

24 MR. PENDELL: Objection.

1 MR. KO: Asked and answered.

2 A. This is a -- sorry. This is a wealth
3 destruction. There are holdings in the -- if you
4 want to say portfolios of local people, that are
5 diminished by the expectation of crime. It's -- I
6 don't know, it's a -- I don't even know how to say
7 it beyond that. To construct this in some way to
8 benefit people is, I think, really an odd aspect of
9 economics -- would be an odd application of
10 economics.

11 Q. Well, it's not to say they benefit from it,
12 but you're saying they're harmed by it without
13 measuring the countervailing consideration.

14 MR. KO: Object to the form.

15 A. No, here's the --

16 Q. They may sell it for less, but they paid
17 for less at the same time.

18 MR. PENDELL: Objection.

19 MR. KO: I don't know if there's a
20 question pending, but object to the form.

21 THE DEPONENT: I have a statement to
22 make even if there's not a question pending.

23 MR. KO: Go for it.

24 A. Okay, here's the thought experiment: There

1 is residential property owned by people in the end
2 of 2019, and it is what it is, and one of the
3 factors that influence the market value of those
4 properties is the expectation of the, you know,
5 neighborhood safety. Is my -- I'm going to go out
6 and walk the dog at night without worrying; is my
7 child not going to be exposed to, you know, needle
8 exchange at a park down the street.

9 Those things will affect the property
10 values. And at the end of 2019, they have a
11 certain value. And now the thought experiment is:
12 I'm going to wave an economic magic wand and take
13 away 7.2 percent of the future crime that you,
14 property owner, are worried about.

15 Bing, everyone's property value goes
16 up. That's it.

17 Q. Are you finished with your statement?

18 A. Yes, I am.

19 Q. Okay. Could you turn to Paragraph 33 of
20 your report?

21 A. Okay.

22 Q. You say in your report, "From an economic
23 standpoint, the costs due to the sales and
24 distribution of prescription opioids include costs

1 for which prescription opioids are the proximate
2 cause" "and those for which prescription opioids
3 were the ultimate but not necessarily the proximate
4 cause."

5 Do you see that?

6 A. Well, yeah, I was in the wrong paragraph in
7 the appendix. So it will just take me one second,
8 but --

9 Q. Sure. It's page 17 of your report.

10 A. Okay, I see that.

11 Q. Okay. So is it accurate to say that the
12 costs that you've calculated due -- as being due to
13 the sales and distribution of prescription opioids
14 include some costs for which prescription opioids
15 are the proximate cause and some costs for which
16 prescription opioids were not necessarily the
17 proximate cause?

18 A. I think that's fair to say.

19 MR. KEYES: I don't have any further
20 questions at this point.

21 Do any other counsel have questions?

22 MR. PENDELL: Plaintiffs counsel may.
23 I would like to take a break, but I don't want to
24 interfere with any of the other defendants that may

1 have questions.

2 I mean, Andy, if I knew you were going
3 to be so short, we probably could have skipped
4 lunch. But if I could have five minutes to talk to
5 David for a moment, David Ko, I'd appreciate it.

6 MR. KEYES: Sure.

7 MR. KO: And Tom, go ahead and -- if
8 you don't mind, Tom, why don't you just stay on the
9 Zoom. And you don't have to mute if you mind
10 staying for a moment. Okay?

11 VIDEO OPERATOR: Going off the record,
12 the time is 1:25 p.m.

13 (A recess was taken after which the
14 proceedings continued as follows:)

15 VIDEO OPERATOR: This begins Media
16 Unit 5 in the deposition of Tom McGuire. We're
17 back on the record. The time is 1:28 p.m.

18 EXAMINATION

19 BY MR. KO:

20 Q. Hey, Tom --

21 MR. KO: And just for the record, this
22 is David Ko of Keller Rohrbach on behalf of the
23 plaintiffs.

24 Q. I just have a few follow-up questions

1 regarding some of the stuff that Andy Keyes asked
2 you this morning. And I'm going to call him "Andy"
3 just to not confuse him with the expert, the
4 plaintiff's expert, Kathy Keyes. (Zoom audio
5 glitch)

6 A. Yeah, her beard looks very different than
7 Andy's.

8 Q. So earlier today and this morning, I think
9 Andy had asked you whether you had measured the
10 benefits of treating patients with prescription
11 opioids. Do you recall that?

12 A. I do, yes.

13 Q. And in response to these questions, you
14 generally responded that you were relying on the
15 clinical inputs of other experts, and I believe in
16 particular Doctor Waller and Doctor Lembke. Do you
17 recall that?

18 A. I do, yes.

19 Q. And for context - and so the record is
20 clear - the sections of your report that you were
21 discussing these questions that Andy asked was in
22 the Morbidity/ODD or Opioid Use Disorder section of
23 your report, correct?

24 A. That's correct.

1 Q. And just so the record is clear once again,
2 this is Section 3B of your report, I believe,
3 right? And take your time to concretely confirm
4 that.

5 A. That's correct.

6 Q. Okay. Now, in that section and with
7 respect to morbidity - and setting aside your
8 reliance on Doctors Lembke and Waller - did you do
9 any other economic analyses to quantify the
10 potential benefit and costs related to prescription
11 opioid use?

12 A. Yes, I did.

13 Q. And it appears that you performed an
14 economic analysis of the impact of prescription
15 opioids on workplace productivity; is that correct?

16 A. That's generally correct, yes.

17 Q. And can you describe to the Court briefly
18 why you performed this analysis?

19 A. Well, I was attempting to address the issue
20 of what were the potential economic benefits to
21 prescription opioids, and weigh those against costs
22 in the same domain, the domain here being work
23 force productivity.

24 And in order to do that, I examined

1 literature, which has a number of studies of the
2 relationship between opioids and work, and came to
3 a determination that on balance, on net, the
4 negative effects on productivity outweigh the
5 positive effects.

6 And you know, there are some studies
7 that are very directly related to address that
8 question.

9 Q. And is this analysis that you described a
10 reasonable economic analysis to measure net
11 benefits and costs?

12 MR. KEYES: Objection to form.

13 A. Well, it is. The -- again, what I did in
14 this context was to review other papers that
15 established the net -- the net costs or positive
16 costs outweigh the benefits, but then going
17 forward, I treated them as zero. I treated them as
18 balancing out just exactly.

19 Which, you know, is a kind of
20 measurement and it's a -- certainly a under -- an
21 undercount or a conservative measurement of the net
22 costs.

23 Q. And with respect to the studies that you
24 just described, those studies, I presume, contain

1 data and evidence underlying those studies. Is
2 that a fair assessment?

3 A. Yeah, all of them are empirical studies,
4 yes.

5 Q. Okay. And so would you -- would it be fair
6 to say that workplace productivity is a reasonable
7 empirical proxy to measure benefits and costs for
8 an economic analysis?

9 MR. KEYES: Objection to form.

10 A. It's -- in this -- in this context, this is
11 where -- you know, from an economic standpoint,
12 this is how potential benefits might manifest
13 themselves. So yes, I think it's a reasonable
14 approach to -- you know, figuring your -- of
15 benefits in relation to costs in economic terms.

16 Q. And just a few more questions, Tom. Turn
17 to Paragraph 63 of your report.

18 A. Okay.

19 Q. Okay. In that paragraph -- let's see. I
20 believe you identify and indicate that the primary
21 analysis you have performed regarding workplace
22 productivity is complemented by the clinical
23 opinions offered by other experts, including, as we
24 discussed earlier today, Doctors Lembke and Doctor

1 Waller. Is that correct?

2 A. Yes, I use the word "complemented" in the
3 first sentence there.

4 Q. So would it also be fair to say that these
5 clinical inputs that you discuss here supplement
6 the primary economic analysis you performed
7 regarding workplace productivity?

8 A. Yes, that's fair to say.

9 Q. Okay.

10 MR. KO: That's all I have. Thank
11 you, Tom.

12 MR. KEYES: Does anyone else have any
13 questions for Professor McGuire?

14 MR. PENDELL: I just want to note that
15 we'll read and sign. I want to make sure that I
16 don't forget to say that.

17 MR. KEYES: Professor McGuire, thank
18 you for your time.

19 MR. KO: Thanks everyone.

20 THE DEPONENT: Thank you.

21 VIDEO OPERATOR: We are off the record
22 at 1:34 p.m., and this concludes today's testimony
23 given by Tom McGuire. The total number of media
24 units used was five and will be retained by

1 Veritext.

2 (Having indicated he would like to
3 read his deposition before filing,
4 further this deponent saith not.)

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STATE OF WEST VIRGINIA,
COUNTY OF JACKSON, to wit;

I, Teresa S. Evans, a Notary Public within
and for the County and State aforesaid, duly
commissioned and qualified, do hereby certify that
the foregoing deposition of THOMAS McGUIRE was duly
taken by me and before me at the time and place and
for the purpose specified in the caption hereof,
the said witness having been by me first duly
sworn.

I do further certify that the said
deposition was correctly taken by me in shorthand
notes, and that the same were accurately written
out in full and reduced to typewriting and that the
witness did request to read his transcript.

I further certify that I am neither
attorney or counsel for, nor related to or employed
by, any of the parties to the action in which this
deposition is taken, and further that I am not a
relative or employee of any attorney or counsel
employed by the parties or financially interested
in the action and that the attached transcript
meets the requirements set forth within article
twenty-seven, chapter forty-seven of the West
Virginia Code.

My commission expires October 25, 2020.
Given under my hand this 11th day of September,

~~Given under my hand~~



Teresa S. Evans
RMR, CRR, RPR, WV-CCR

1 STATE OF WEST VIRGINIA

2 COUNTY OF KANAWHA, to wit;

3 I, Teresa Evans, owner of Realtime Reporters,
4 LLC, do hereby certify that the attached deposition
5 transcript of THOMAS McGUIRE meets the requirements
6 set forth within article twenty-seven, chapter
7 forty-seven of the West Virginia Code to the best
8 of my ability.

9
10 Given under my hand this 11th day of September,
11 2020.

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14
15 GIVEN UNDER MY HAND

16 

17 Registered Professional
18 Reporter/Certified Realtime Reporter
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Phone: 216-523-1313

September 14, 2020

To: Michael Pendell, Esquire

Case Name: City of Huntington v. Amerisourcebergen Drug Corporation

Veritext Reference Number: 4245440

Witness: Thomas McGuire Deposition Date: 9/9/2020

Dear Sir/Madam:

Enclosed please find a deposition transcript. Please have the witness review the transcript and note any changes or corrections on the included errata sheet, indicating the page, line number, change, and the reason for the change. Have the witness' signature notarized and forward the completed page(s) back to us at the Production address shown above, or email to production-midwest@veritext.com.

If the errata is not returned within thirty days of your receipt of this letter, the reading and signing will be deemed waived.

Sincerely,
Production Department

NO NOTARY REQUIRED IN CA

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 4245440

CASE NAME: City of Huntington v. Amerisourcebergen Drug Corporation, et al.

DATE OF DEPOSITION: 9/9/2020

WITNESS' NAME: Thomas McGuire

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have made no changes to the testimony as transcribed by the court reporter.

Date

Thomas McGuire

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;

They signed the foregoing Sworn Statement; and

Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal

this _____ day of _____, 20____.

Notary Public

Commission Expiration Date

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 4245440

CASE NAME: City of Huntington v. Amerisourcebergen Drug Corporation, et al.

DATE OF DEPOSITION: 9/9/2020

WITNESS' NAME: Thomas McGuire

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have listed my changes on the attached Errata Sheet, listing page and line numbers as well as the reason(s) for the change(s).

I request that these changes be entered as part of the record of my testimony.

I have executed the Errata Sheet, as well as this Certificate, and request and authorize that both be appended to the transcript of my testimony and be incorporated therein.

Date

Thomas McGuire

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;
They have listed all of their corrections
in the appended Errata Sheet;
They signed the foregoing Sworn
Statement; and
Their execution of this Statement is of
their free act and deed.

I have affixed my name and official seal
this _____ day of _____, 20____.

Notary Public

Commission Expiration Date

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ERRATA SHEET
VERITEXT LEGAL SOLUTIONS MIDWEST
ASSIGNMENT NO: 4245440

PAGE/LINE(S) / CHANGE /REASON

Date Thomas McGuire
SUBSCRIBED AND SWORN TO BEFORE ME THIS _____
DAY OF _____, 20_____.

Notary Public

Commission Expiration Date

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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